Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL
OIL WELL [ ] GAS WELL [X] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
Mid-Continent Oil & Gas Reserves

3. ADDRESS OF OPERATOR
12700 Park Central Place, Suite 1404, Dallas, Texas 75251

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
NE NW Section 13, T33S-R2E; 501' FNL, 2078' FWL
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
18.2 miles north of Escalante, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 501' FNL

16. NO. OF ACRES IN LEASE 1,720.00

17. NO. OF ACRES ASSIGNED TO THIS WELL 80

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH 3850'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 8291.0 GR

22. APPROX. DATE WORK WILL START* June 1, 1984

5. LEASE DESIGNATION AND SERIAL NO.
~~U-53741~~ U53744

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Charger

9. WELL NO.
#4 Charger

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 13, T33S-R2E

12. COUNTY OR PARISH Garfield

13. STATE Utah

TOROWEAP-WHITERIM

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
20"	13-3/8" new or used	54.5#	120'	
12-1/4"	9-5/8" new or used	36#K-55 ST&C	2430'	350 sxs Class "H" 3% $CaCl_2$
7-7/8"	5½" new or used	15.5#K-55 LT&C	3850'	250 sxs Class "H" 3% $CaCl_2$

1. Drill 20" hole and set 120' interval of conductor pipe and cement in place.
2. Drill 12-1/4" hole and set 9-5/8" surface casing to 2430' with good returns.
3. Log B.O.P. checks in daily drill reports and drill 7-7/8" hole to 3850'.
4. Run tests if warranted and run 5-1/2" casing if productive.
5. Run logs, as needed, and perforate and stimulate as needed.

EXHIBITS ATTACHED:

"A"	Location and Elevation Plat
"B"	The 10-Point Compliance Program
"C"	The Blowout Preventer Diagram
"D"	The Multi-Point Requirements of A.P.D.
"E" & "E_1"	Access Road Maps to Location
"F"	Radius Map of Field
"G" & "G_1"	Drill Pad Layout, Production Facilities & Cut-Fill Cross Sections
"H"	Drill Rig Layout
"I"	Unusual Environmental Assessment

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
SIGNED John D. Slawter TITLE President DATE 4/20/84

(This space for Federal or State office use)

PERMIT NO. ____ APPROVAL DATE ____

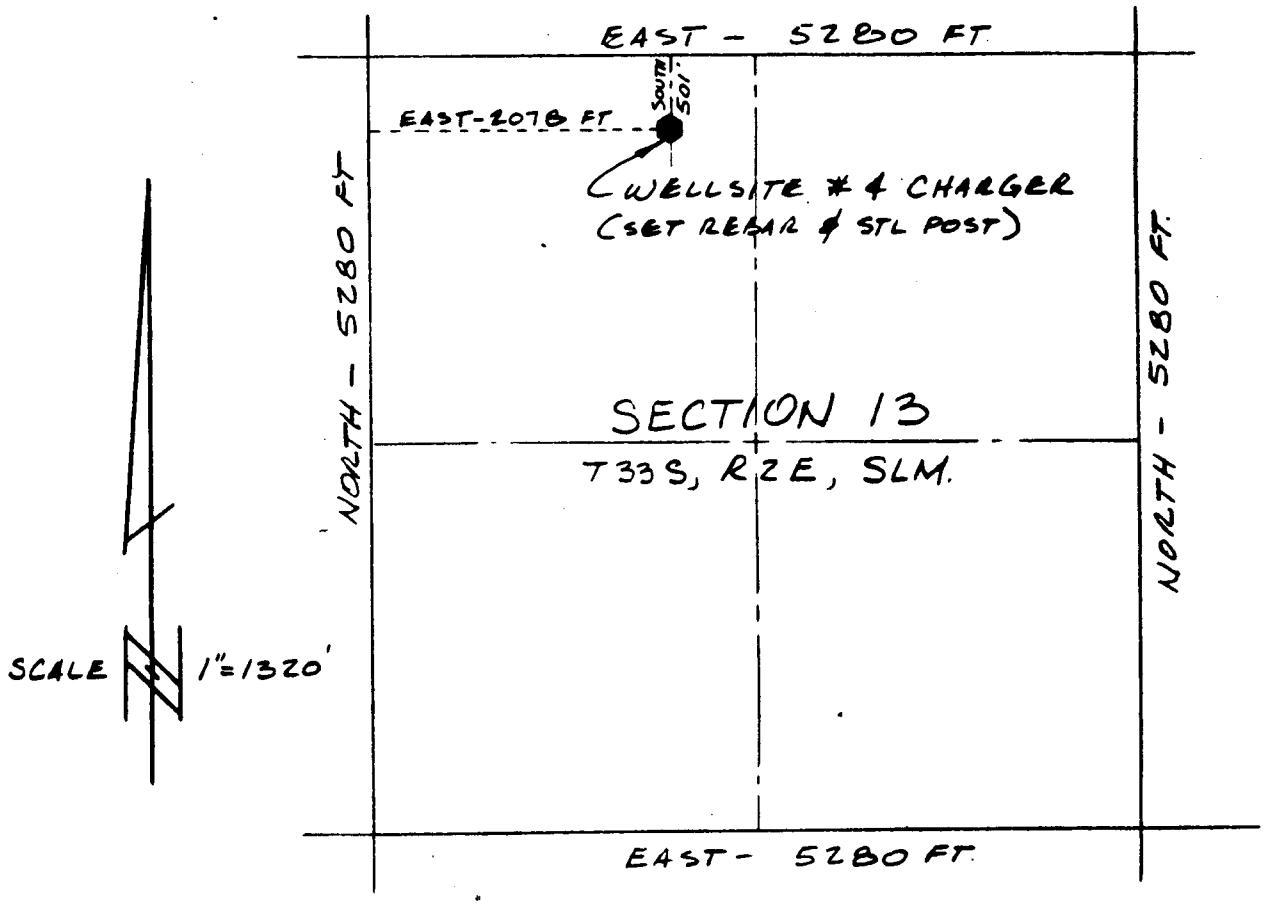
APPROVED BY ____ TITLE ____ DATE ____
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 5/10/84
BY: [signature]

EXHIBIT "A"

REGISTERED LAND SURVEYOR
STATE OF UTAH

OPERATOR:	Mid-Continent Oil Company
WELL NUMBER:	#4 Charger
LOCATION:	Section 13, T33S, R2E, SLM
COUNTY:	Garfield
STATE:	Utah
ELEVATION:	Ground = 8291.0



REF marker #1-Nail at top of Stake in 18" diameter Pine located N 5°33' W, 179.67 feet from the center of well.
Elevation = 8296.3 (VABM)

REF marker #2 (rebar) - located S 77°30'W 419.59 feet from the center of well.
Elevation = 8351.2 (VABM)

Note: This well site falls within an unsurveyed area and the sectional ties shown are based on BLM protraction diagrams as they relate to section 25, T33S, R3E, SLM.

BULLOCK BROS. ENGINEERING INC.
CEDAR CITY, UTAH

WELL LOCATION MAP
#4 CHARGER
Mid-Continent Oil Company
Dallas, Texas

DATE 3/19/84
SCALE 1"=1350'
DRAWN N.L. RHODES

Mr. Orlyn Terry
2460 West 26th Avenue
Suite 470-C
Denver, Colorado 80211

RE: Filing NTL-6 and A.P.D. Form 9-331C
Mid-Continent Oil & Gas Reserves, Inc.
#4 Charger
NE NW Section 13, T33S-R2E
Garfield County, Utah
501' FNL, 2078' FWL

Dear Mr. Terry:

This is to confirm our understanding with you that Orlyn Terry is authorized to act as our agent in the following capacities:

A. In surveying, staking, and preparing and filing necessary applications, permits and compliance programs, including complete NTL-6 reports, for the above-referenced project.

B. In accepting on our behalf any changes to location, proposed facilities and/or surface use plan and compliance program requested at on-site inspections, when we are unable to have a Company representative present. Such changes will then be binding upon us or designated Operator.

TERRY'S responsibilities do not include construction of location or supervision of drilling, completion or rehabilitation operations.

Mid-Continent Oil & Gas Reserves, Inc.
Company

By: John D. Slawter
John D. Slawter, President

Date: April 20th 1984

EXHIBIT "B"

TEN-POINT COMPLIANCE PROGRAM

OF NTL-6 APPROVAL OF OPERATIONS

Attached to Form 9-331 C
Mid-Continent Oil & Gas Reserves, Inc.
#4 Charger
NE NW Section 13, T33S-R2E
501' FNL, 2078' FWL
Garfield County, Utah

1. The Geologic Surface Formation

The surface formation is the Navajo Sandstone.

2. Estimated Tops of Important Geologic Markers.

Chinle	1820'
Shinarump	2425'
Moenkopi	2640'
Timpoweap	3270'
Kaibab	3340'
Toroweap-White Rim	3568'
Total Depth	3850'

3. Estimated Depths of Anticipated Water, Oil, Gas or Minerals

Shinarump	2525'	Gas
Timpoweap	3270'	Gas
Kaibab	3340'	Gas
Toroweap-White Rim	3568'	Gas

No water will be encountered.

4. The Proposed Casing Program

HOLE SIZE	INTERVAL	SECTION LENGTH	SIZE (OD)	WEIGHT, GRADE & JOINT	NEW OR USED
20"	0-120'	120'	13-3/8"	54.5#	Either
12-1/4"	0-2430'	2430'	9-5/8"	36# K-55,ST&C	Either
7-7/8"	0-3850'	3850'	5-1/2"	15.5# K-55,LT&C	Either

Cement Program -

Conductor Pipe: Cement to surface with ready mixed concrete.

Surface Casing: Cement with 350 sacks, Class H, 3% $CaCl_2$

Production Casing: Cement with 250 sacks, Class H, 3% $CaCl_2$

5. The Operator's Minimum Specificiation for Pressure Control

EXHIBIT "C" is a schematic diagram of the blowout preventer equipment. The BOP's will be hydraulically tested to half of working pressure after nippling up and after any use under pressure. Pipe rams will be operationally checked each 24-hour period, as will blind rams and annular preventer each time pipe is pulled out of the hole. Such checks of BOP will be noted on daily drilling reports.

Accessories to BOP will include a kelly cock, floor safety value, drill string BOP and choke aminfold with pressure rating equivalent to the BOP stack.

6. The Type and Characteristics of the Proposed Circulating Muds

This well will be drilled with air mist from surface to total depth. Exhaust will be muffled. Other materials will be on site to handle any anticipated downhole problems as well as possible spills of fluid on the surface. If water flow is encountered, drilling will stop and production casing will be run.

DEPTH	TYPE	WEIGHT #/gal.	VISCOSITY-sec/qt.	FLUID LOSS cc
0-3850'	Air	N/A	N/A	N/A

7. The Auxiliary Equipment to be Used

(a) A kelly cock will be kept in the string.

(b) A float will not be used at the bit.

(c) A gas detecting device will be monitoring the system.

(d) A stabbing valve will be on the floor to be stabbed into the drill pipe when kelly is not in the string.

8. The Testing, Logging and Coring Programs to be Followed.

(a) Drill Stem Tests will be determined during drilling.

(b) The logging program will consist of the following:

Gamma Ray Neutron	Surface - TD
Density	Surface - TD
Temperature	Surface - TD

Other logs will be determined at site to best evaluate any shows.

(c) No coring is anticipated.

(d) Stimulation procedures will be determined after evaluation of logs. If treatment is indicated, appropriate Sundry Notice will be submitted for approval.

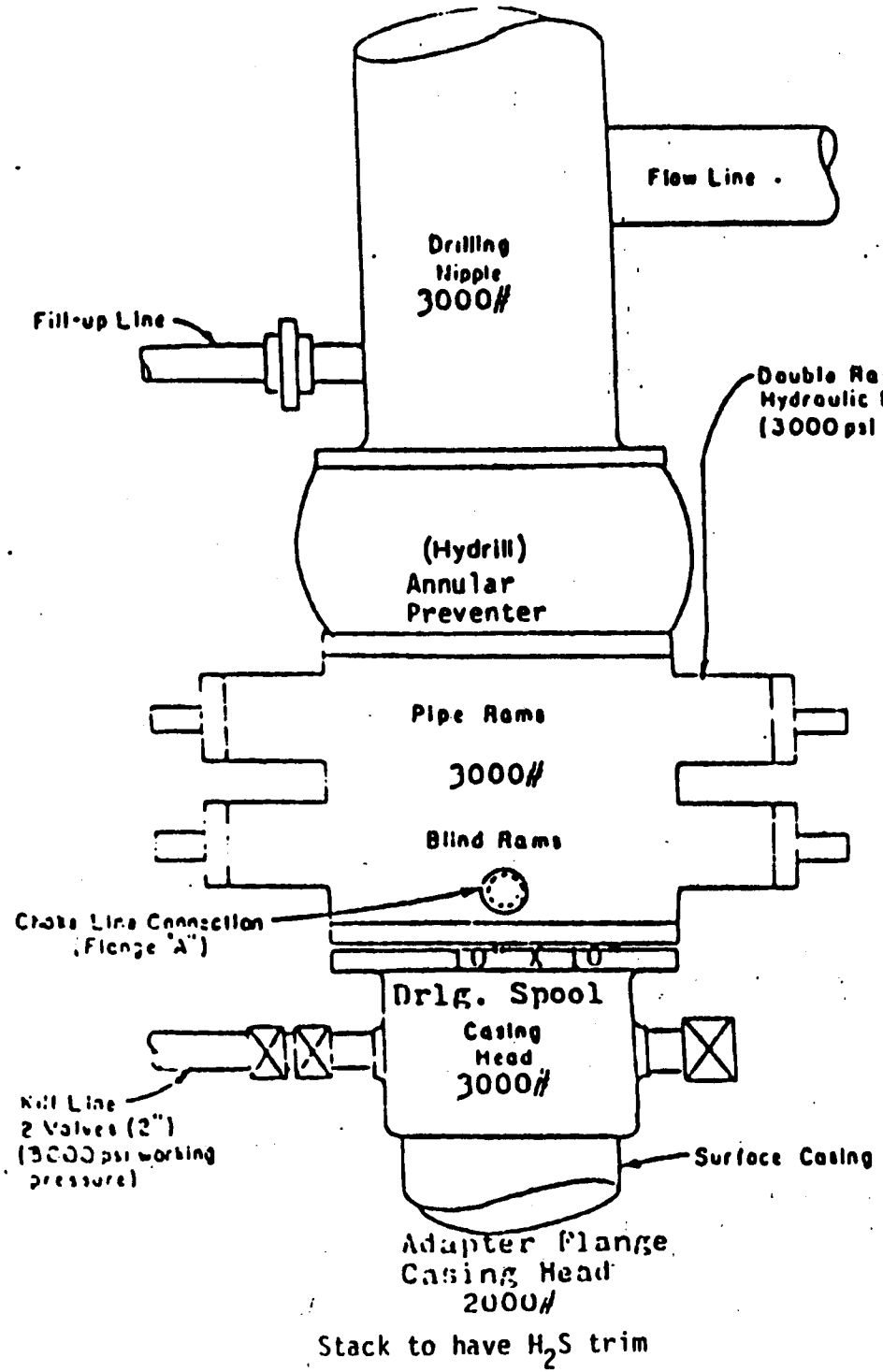
9. Any Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at the depths anticipated in this well. Bottom hole pressure expected is 170 psi ±.

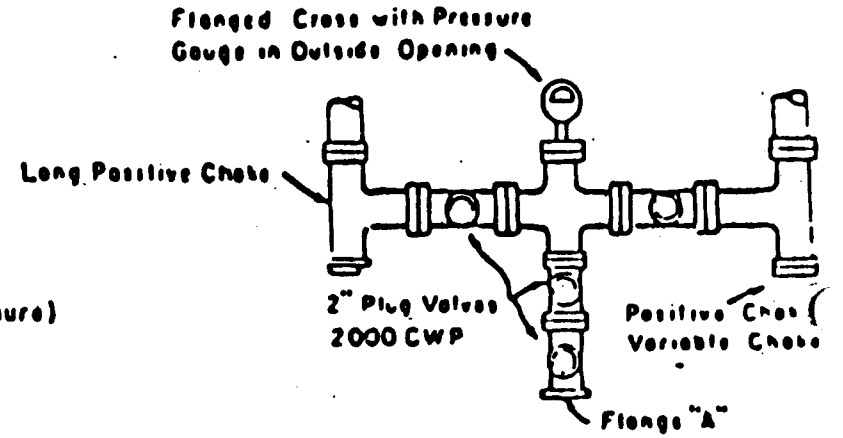
No hydrogen sulfide or other hazardous fluids or gases have been found, reported or known to exist at these depths in the area.

10. Anticipated Starting Date Duration of the Operations

The anticipated starting date is set for June 1, 1984, or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 20 days after spudding the well to casing point.



Stack to have H_2S trim



PLAN VIEW - CHOKE MANIFOLD

EXHIBIT "C"
BLOWOUT PREVENTER DIAGRAM

EXHIBIT "D"

MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Attached to Form 9-331 C
Mid-Continent Oil & Gas Reserves, Inc.
#4 Charger
NE NW Section 13, T33S-R2E
501' FNL, 2078' FWL
Garfield County, Utah

1. Existing Roads

A. The proposed well site and elevation plat is shown as EXHIBIT "A". Staking includes reference markers and elevations, also shown on EXHIBIT "A".

B. The distance from Escalante, Utah is 18.2 miles. Begin in Escalante and proceed 11.8 miles north on the Hells Back Bone Road to the junction with the Posy Lake Road. Thence, north on the Hells Back Bone Road 5.1 miles to the road leading east to the Skyline #1 Federal road in Section 12. Thence, 1.3 miles along this road to the Skyline well location. The new location is situated 2200' south west of the Skyline location on the same ridge.

C. All roads to location are color-coded on EXHIBITS "E" & "E_1". A new access road of approximately one mile is being recommended as shown on EXHIBIT "E_1".

D. This is an extension well. All existing roads within a three-mile radius are shown on EXHIBIT "E".

E. N/A

F. The existing road from Escalante to Hells Back Bone is an excellent gravel road and will need no improvement. The road to the Skyline well will have to be graded and reconstructed.

2. Planned Access Roads

Map showing all necessary access roads to be reconstructed is shown as EXHIBIT "E_1". The new road to be constructed is also shown. No blasting nor cutting of solid rock will be required. These roads are necessary for the following:

A. Drilling Operations

(1) The maximum width of the 1.3 miles of reconstructed access required for drilling will be 15 feet.

(2) The grade will be 8% or less.

(3) No turnouts are planned.

(4) No drainage design is planned during drilling operations. Brush will be cleared. The existing gravel road needs blading to remove any remaining snow. This road has existing water bars at regular intervals.

(5) No culverts are needed.

(6) No surfacing material will be required.

(7) No gates, fence cuts, or cattleguards will be installed.

(8) This road does cross U.S.F.S. lands, as shown on EXHIBIT "E".

B. Production

(1) If production is obtained, reconstructed road will be graded and surfaced and drainage will be constructed. If accumulated material is not sufficient, additional materials will be provided by dirt contractor.

3. Location of Existing Wells

For all existing wells within a one-mile radius of Exploratory well, see EXHIBIT "F".

(1) There are no water wells within a one-mile radius of this location.

(2) There is one abandoned well in this one-mile radius.

(3) There are no temporarily abandoned wells.

(4) There are no disposal wells.

(5) There are no wells presently being drilled.

(6) There are no producing wells within this one-mile radius.

(7) There are not shut-in wells within a one-mile radius.

(8) There are no injection wells.

(9) There are no monitoring or observation wells for other uses.

4. Location of Existing and/or Proposed Facilities

A. Within a one-mile radius of location, the following existing facilities are owned or controlled by Mid-Continent Oil or other lessee/operator:

(1) Tank Batteries: None.

(2) Production Facilities: None

(3) Oil Gathering Lines: None

(4) Gas Gathering Lines: None

(5) Injection Lines: None

(6) Disposal Lines: None

B. If production is obtained, new facilities will be as follows:

(1) Production facilities will be located on solid ground of cut area of drill pad, as shown on EXHIBIT "G".

(2) All well flow lines will be buried.

(3) Production facilities will be 245 feet long and 135 feet wide. Areas of drill pad not required for production facilities will be rehabilitated.

(4) No tank batteries will be needed.

(5) Any necessary pits will be fenced and flagged to protect livestock and wildlife.

C. Rehabilitation, whether well is productive or dry, will be made on all unused areas in accordance with U.S.F.S. stipulations.

5. Location and Type of Water Source

A. Only enough water will be needed to set and cement casing, for drilling equipment and for drinking water of personnel on location. Pine Creek appears to be the most logical place to obtain this water.

B. Water exists in Pine Creek approximately 2.6 miles northwest of the location. Water permit will be obtained from the State of Utah, Natural Resources & Energy.

C. No water well is to be drilled on this lease.

6. Construction Materials

A. No construction materials are needed for drilling well or constructing access roads into the location during drilling. The surface soil materials will be sufficient.

B. No construction materials will be taken off Federal land.

C. All surface soil materials for construction of access roads for drilling are sufficient. If well is productive, and material from road and pad is not sufficient, surfacing materials will be provided by Lincoln Lyman Construction Company of Escalante, Utah.

D. All major access roads presently exist as shown on EXHIBIT "E".

7. Handling of Waste Materials and Disposal

(1) Drill cuttings will be buried in the reserve pit.

(2) Drilling fluids will be handled in the reserve pit.

(3) No fluids should be encountered; however, if any fluids are produced during drilling test or while making production test, they will be collected in a test tank. If a test tank is not available during drilling, fluids will be handled in reserve pit. Any spills of oil, gas, salt waters, or other noxious fluids will be cleaned up and removed. If well is productive, produced water will be disposed of on-site for 30 days only, or 90 days with permission of District Engineer. After that time, application will be made for approval or permanent disposal method in compliance with NTL-2b.

(4) Portable chemical facilities will be provided for human waste.

(5) Garbage and non-flammable waste and salt and other chemicals produced during drilling or testing will be handled in trash cage. Drill fluids, water, drilling mud and tailings will be kept in reserve pit, as shown on EXHIBIT "H". The trash cage will be totally enclosed with small mesh wire to prevent wind scattering trash before being buried or removed. Reserve pit will be fenced on three sides during drilling and fourth side fenced upon removal of the rig.

(6) After the rig moves out, all materials will be cleaned up and no adverse materials will be left on location. All dangerous open pits will be fenced uring drilling and kept closed until such time as the pit is leveled.

8. Ancillary Facilities

No air strip, camp or other facilities will be built during drilling of this well.

9. Well Site Layout

(1) EXHIBIT "G" is the Drill Pad Layout as staked, with elevations, by Bulloch Bros. Engineering Inc, Cedar City, Utah. Cuts and fills have been drafted to visulaize the planned cut across the location spot and to the deepest part of the pad. Topsoil is 8" deep and will be stockpiled, as shown on EXHIBIT "G".

(2) EXHIBIT "H" is a plan diagram of the proposed rig and equipment, reserve pit, trash cage, pipe racks and mud tanks, access road, parking and turnaround. No permanent living facilities are planned. There will be a trailer on site.

(3) EXHIBIT "G" is a diagram showing the proposed production facilities layout.

(4) The reserve pits will not be lined.

10. Plans for Restoration

(1) If well is abandoned, site will be restored to original condition as nearly as possible. Backfilling, leveling and contouring are planned as soon as all pits have dried. Waste disposal and spoils materials will be buried or hauled away to an approved sanitary landfill immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.

(2) The soil banked material will be spread over the area. Revegetation will be accomplished by planting mixed grasses as per formula provided by the U.S.F.S. Revegetation is recommended for road area, as well as around drill pad.

(3) Three sides of the reserve pit will be fenced during drilling operations. Prior to rig release, the reserve pit will be fenced on the fourth side to prevent livestock or wildlife from entering; and the fencing will be maintained until leveling and cleanup are accomplished.

(4) If any oil is on the pits and is not immediately removed after operations cease, the pit containing the oil or other adverse substances will be flagged overhead or covered with wire mesh.

(5) The rehabilitation operations will begin immediately after the drilling rig is removed. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and revegetation is considered best in Spring, 1985, unless requested otherwise.

11. Other Information

(1) The location lies in the Canyon Lands section of the Colorado Plateau Province.

The pad is situated on the crest of a ridge running northeast-southwest.

Soil is loam with rocks and boulders throughout.

The area is a ponderosa pine belt with manzanita bush. Deer, elk, coyotes, cougar, small rodents and birds inhabit the area.

(2) The primary surface use is for forestry and recreation. The surface is owned by the U.S. Government. U.S.F.S. ownership of access roads is shown on EXHIBIT "E". There is no private ownership of access roads.

(3) The closest live water is the Pine Creek, approximately 2.6 miles west of the location, as shown on EXHIBIT "E".

The closest occupied dwelling is located in Escalante, Utah, 18 miles southeast of the proposed site, as shown on EXHIBIT "E".

There were no archaeological, historical, or other cultural artifacts apparent to Bulloch's surveyors during their staking of this location. An Unusual Environmental Assessment was prepared by the Department of the Interior on August 29, 1980, for the area to the north in Section 29, T32S-R3E where the #1 Charger was just completed. This should apply to the #4 Charger.

(4) There are no reported restrictions or reservations noted on the oil and gas lease.

(5) Drilling is planned for on or about June 1, 1984. It is anticipated that the casing point will be reached within 20 days after commencement of drilling.

12. Lessee's or Operator's Representative

Orlyn Terry
Agent Consultant for
Mid-Continent Oil & Gas Reserves, Inc.
2460 West 26th Avenue
Suite 470-C
Denver, Colorado 80211
Phone: (303) 573-6166

John D. Slawter, President
Mid-Continent Oil & Gas
Reserves, Inc.
12700 Park Central Place
Suite 1404
Dallas, Texas 75251
Phone: (214) 233-3380

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Mid-Continent Oil and its contractos and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

4/23/84
Date

Orlyn Terry
Agent Consultant for
Mid-Continent Oil & Gas Reserves, Inc.

EXHIBIT "E"
Access Roads to Location

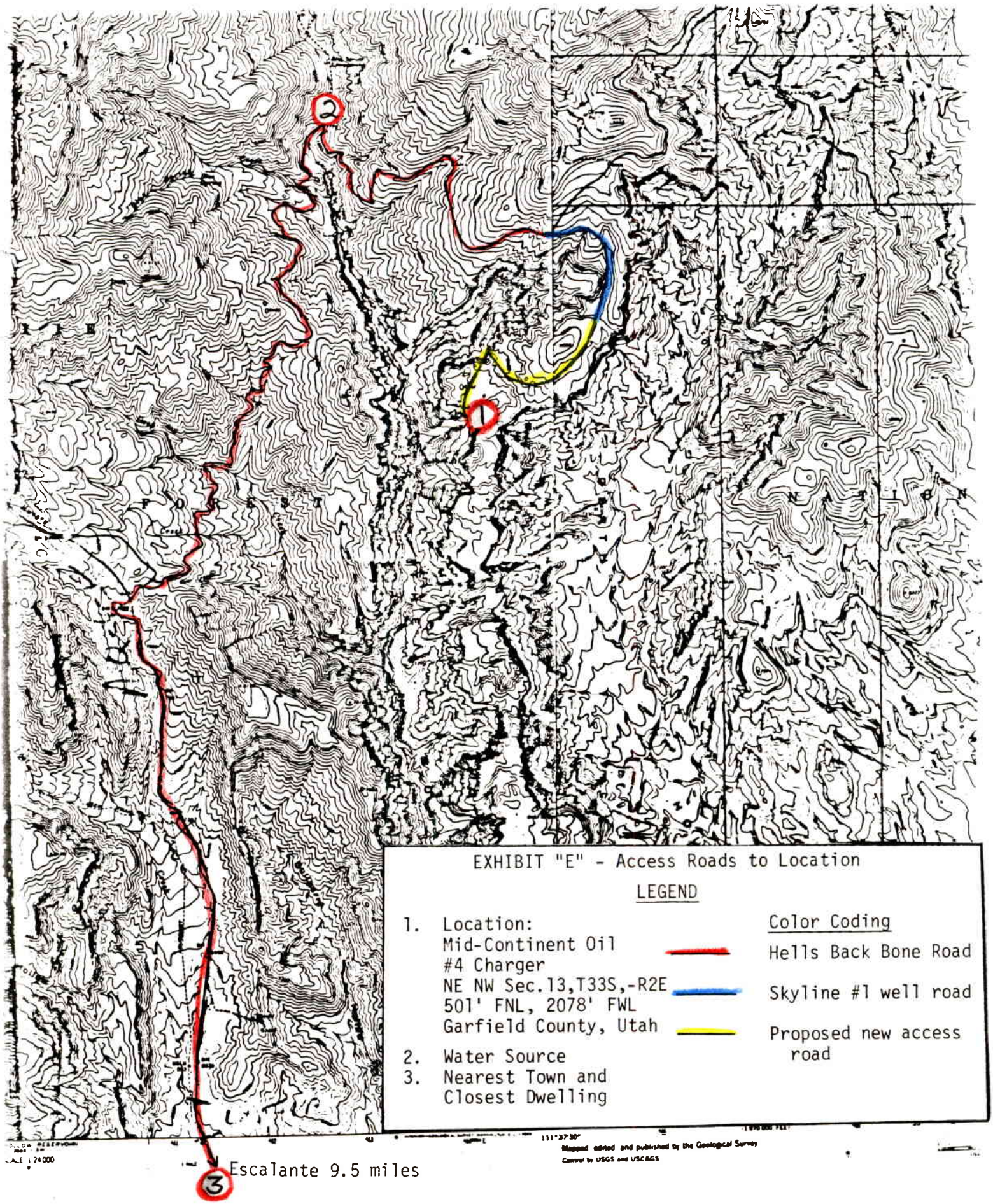


EXHIBIT "E$_1$"

Detail of Access Road

1. Location:
Mid-Continent Oil
#4 Charger
NE NW Sec. 13,T33S-R2E
501' FNL, 2078' FWL
Garfield County, Utah

Color Coding

- Hells Back Bone Road
- Skyline #1 well road
- Proposed new access road

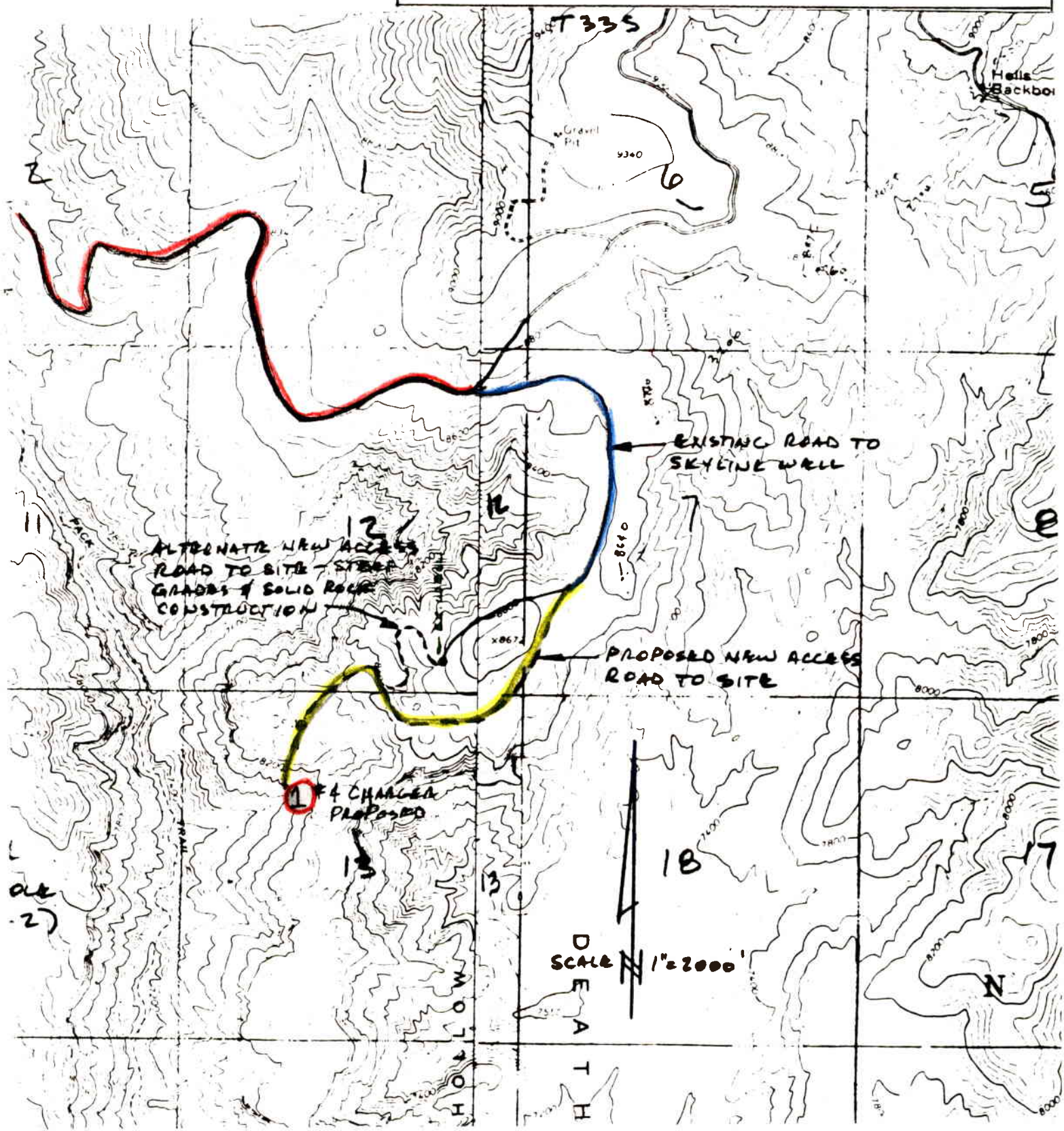
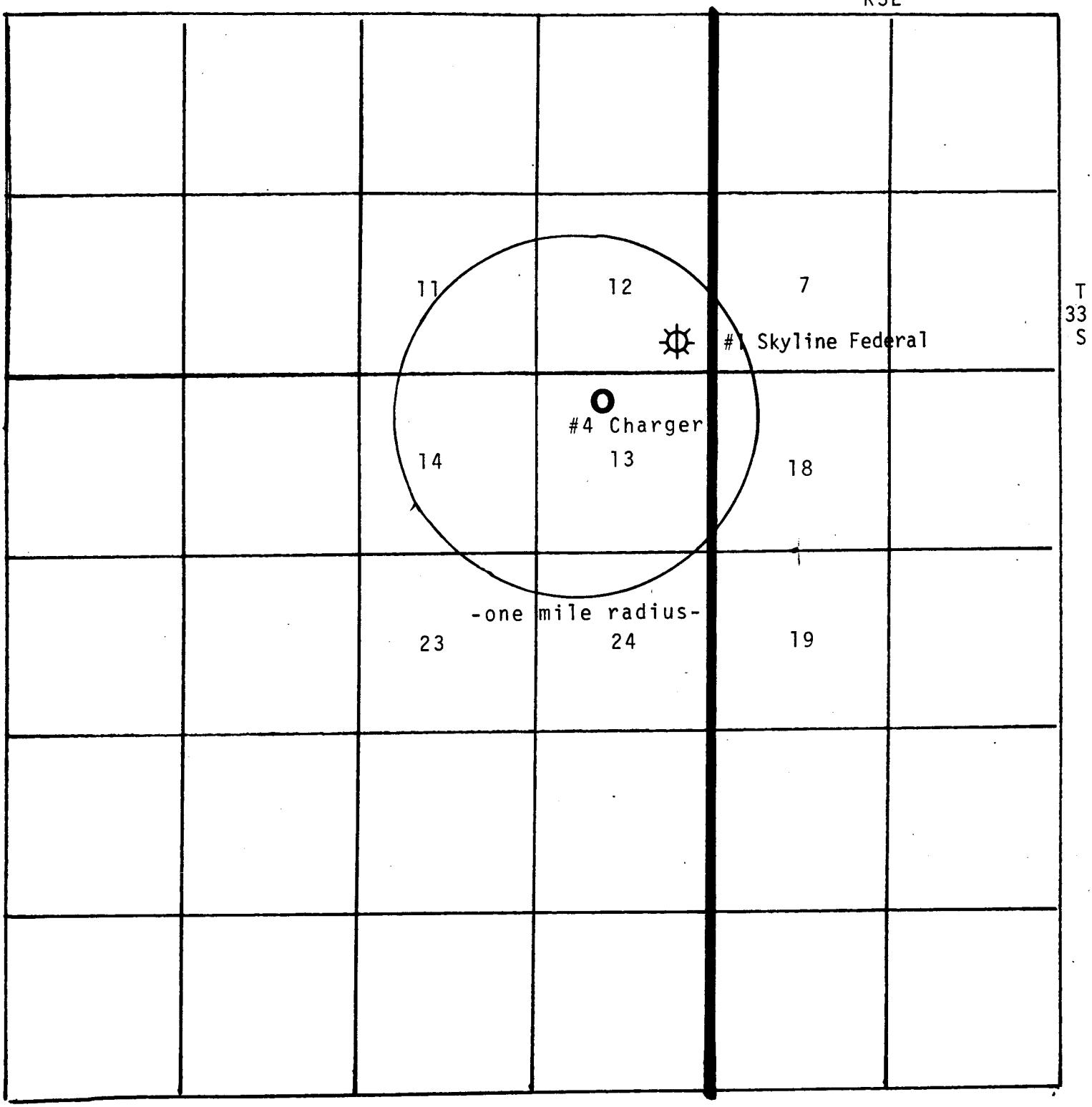


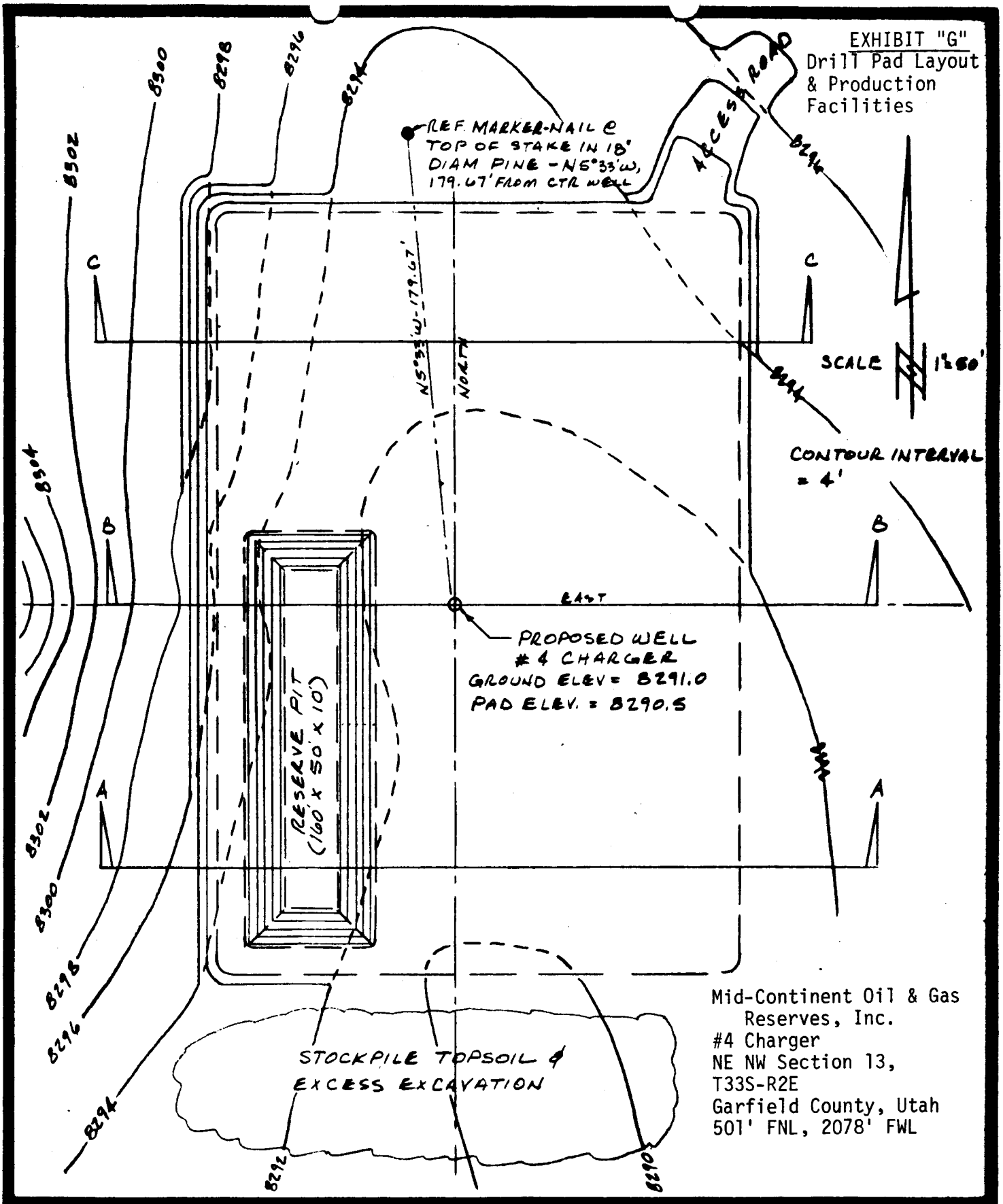
EXHIBIT "F"
Radius Map of Area



LEGEND

- LOCATION
- DRY HOLE
- OIL WELL
- ABANDONED OIL WELL
- TRIANGULATION POINT
- DRILLING
- OIL & GAS WELL
- ABANDONED OIL & GAS WELL
- GAS WELL
- ABANDONED GAS WELL
- WATER WELL

Mid-Continent Oil & Gas Reserves, Inc.
#4 Charger
NE NW Section 13, T33S-R2E
501' FNL, 2078' FWL
Garfield County, Utah



BULLOCH BROS. ENGINEERING INC.
CEDAR CITY, UTAH

DRILL PAD PLAN
FOR
#4 CHARGER
SEC. 13, T33S, R2E, SLM.

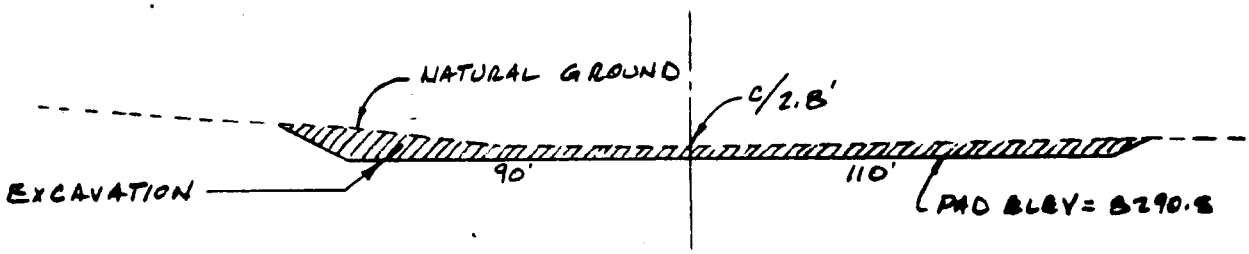
DATE 3/19/84
SCALE 1"=60'
DRAWN N.L. RHODES

SCALE — 1" = 50' HORIZ.
1" = 50' VERTICAL

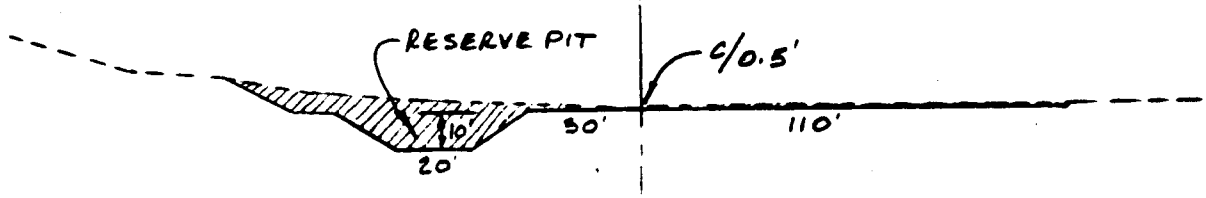
EXHIBIT "G1"
Cut Fill Cross Sections

– – – – = EXISTING GROUND SURFACE
——— = PROPOSED GRADE

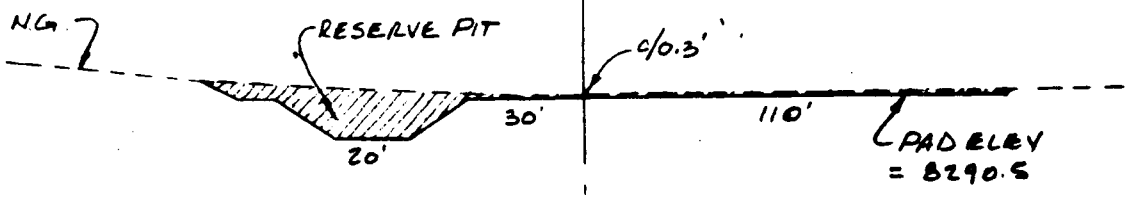
TOTAL CUT = 2760 CUBIC YARDS
TOTAL FILL = 100 CUBIC YARDS



SECTION CC



SECTION BB



SECTION AA

Mid-Continent Oil & Gas Reserves, Inc.
#4 Charger
NE NW Section 13, T33S-R2E
Garfield County, Utah
501' FNL, 2078' FWL

BULLOCK BROS. ENGINEERING INC.
CEDAR CITY, UTAH

DRILL PAD SECTIONS
FOR
4 CHARGER
SEC. 13, T33S, R2E, SLM

DATE 3/19/84
SCALE 1" = 50' HORIZ & VERT
DRAWN NL. RHODES

Mid-Continent Oil & Gas Reserves, Inc.
#4 Charger
NE NW Section 13, T33S-R2E
Garfield County, Utah
501' FNL, 2078' FWL

EXHIBIT "H"

Drill Rig Layout

Scale 1" = 50'

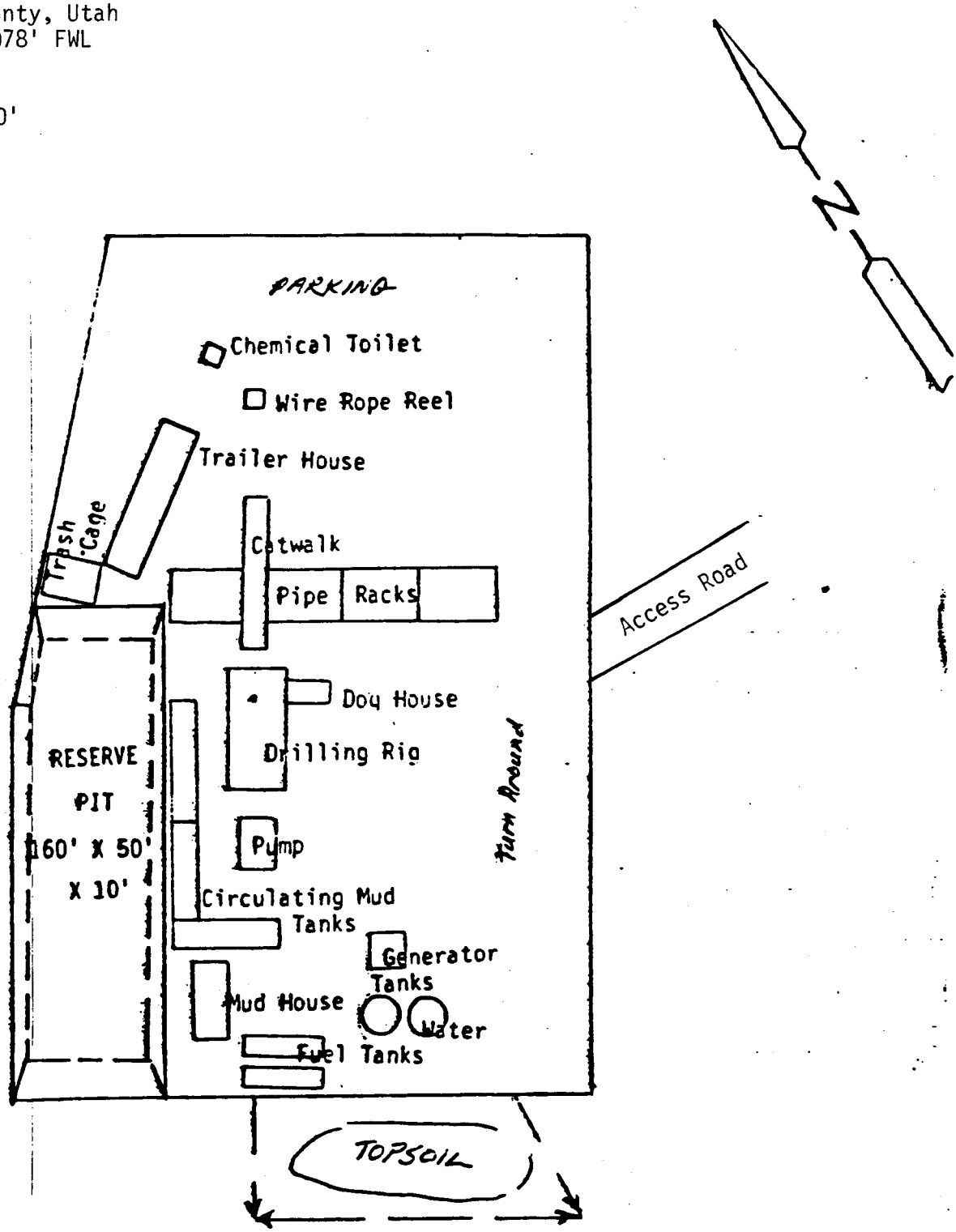


EXHIBIT "I"
Consisting of II Pages

Oil and Gas Drilling

EA No. 575-80

United States Department of the Interior
Geological Survey
2000 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104

USUAL ENVIRONMENTAL ASSESSMENT

Date August 29, 1980 ✓

Operator ARCO Oil & Gas Co. Well No. Escalante #2

Location 682' FSL, 2384' FWL Section 29 Township 32S Range 3E

County Garfield State Utah Field/Unit Wildcat

Lease No. U-38347 Permit No.

Prepared by: Glenn M. Doyle
Environmental Scientist
Grand Junction, Colorado

Joint Field Inspection Date: August 8, 1980

Field Inspection Participants, Titles, and Organizations:

Glenn Doyle	U. S. Geological Survey
Millard Dumas	U. S. Forest Service
Lincoln Lyman	Dirt Contractor
Jack McCarthy	Operator

Typing In: 8/29
Out: 9/5

Related Environmental Documents:

USFS Natural Resources Input, Dixie National Forest.

Admin Compl. 2.
Pad 120 x 180
Pit 14 x 40
1 mi x 12' upgrade exist road
= 3/10 ac
Appr 1-4
→ Cond 7pg & T & E fnd
Arch Clear
& USFS

DESCRIPTION OF PROPOSED ACTION

Proposed Action:

1. Location State: Utah
County: Garfield

682 ' F S L, 2384 ' F W L, SE ¼ SW ¼

Section 29, T32S, R3E, SLBM

2. Surface Ownership Location: Public
Access Road: Public

Status of Reclamation Agreements: Not Applicable

3. Dates APD Filed: July 14, 1980
APD Technically Complete: July 24, 1980
APD Administratively Complete: July 14, 1980

4. Project Time Frame Starting Date: September 1980
Duration of drilling activities: 21 days.

A period of 30 to 60 days is normally necessary to complete a well for production if hydrocarbons are discovered. If a dry hole is drilled, recontouring and reseeding would normally occur within one year; revegetation or restoration may take several years. If the well is a producer, an indefinite period of time would occur between completion and rehabilitation.

5. Related actions of other federal or state agencies and Indian tribes:

None known

6. Nearby pending actions which may affect or be affected by the proposed action:

None known

7. Status of variance requests:

None known

The following elements of the proposed action would/could result in environmental impacts:

1. A drill pad 120' wide x 180' long and a reserve pit 14' x 40' would be constructed on a previously constructed wellsite. Approximately one mile of existing road would be reconstructed to an average width of 18'. Culverts will be installed as specified by the Forest Service. Approximately 2.18 acres of disturbed surface would be associated with the project.

   A workover rig will be used to drill out the existing cement plugs in the hole. ARCO plans to test for CO_2 gas.

2. Drilling to a depth of 3300'.

3. Waste disposal would be contained in a trash pit.

4. Traffic would be restricted to existing roads and the disturbed surface of the pad only.

5. Water requirements

6. Completion

7. Production

Details of the proposed action are described in the Application for Permit to Drill.

The access road would be designed as per USFS recommendations.

Environmental Considerations of the Proposed Action:

Regional Setting/Topography - The wellsite lies on an erosional slope at the base of cliffs which flank the Aquarius Plateau on the east. Regionally, steep topography surrounds the site, eventually grading into deeply-incised canyonlands-type relief.

PARAMETER

A. Geology - Surface is the Navajo Sandstone. Other formations are listed in the 10-Point Subsurface Plan.

Information Source: Application to Drill.

1. Other Local Mineral Resources to be Protected: None reported.

Information Source: ME, District Geologist.

2. Hazards:

a. Land Stability: Location and access built on Navajo Sandstone. Material is stable, provided the slopes are moderate and moisture content is low.

Information Source: Field observation.

b. Subsidence: Subsidence could occur with the withdrawal of oil, gas, and/or water.

Information Source: Keller, Edward A., 1976, Environmental geology, Charles E. Merrill, 488 pp.

c. Seismicity: Seismic risk: low. Statistically, greatest damage would be moderate, corresponding to intensity VII of Modified Mercalli Intensity Scale, 1931.

Information Source: Algermissen, S. T., and Perkins, David M., 1977, Earthquake hazards map of the United States, Reprint from Earthquake Information Bulletin, 9(1) Jan-Feb., 4 pp.;

Perkins, David M., 1974, Seismic risk maps, Reprint of Earthquake information bulletin, 6(6) Nov-Dec.; von Hake, Carl A., Earthquake History of Utah, NOAA.

d. High Pressure Zones/Blowout Prevention: No high pressure zones expected. Blowout prevention systems detailed in APD.

Information Source: Application to Drill.

B. Soils

1. Soil Character: Soils are of a sandy-loam texture, probably well-drained and slightly alkalic, and support the subalpine-alpine pine and aspen communities.

Information Source: Field observation.

2. Erosion/Sedimentation: Erosion/sedimentation would increase as would runoff potential. Extent of increases unpredictable without site-specific studies being done. Waterbarring of the roads, ditching of the sides, and the installation of culverts as per USFS specifications would minimize erosion and runoff.

Information Source: Field observation.

C. Air Quality - Wellsite lies in Class II attainment area. No Class I attainment areas are near, or adjacent to, proposed location.

Information Source: State of Utah

D. Noise Levels - Ambient noise levels will be temporarily increased over the duration of drilling activity. Wildlife will avoid immediate area. After well completion, if well is dry hole, noise levels will return to nearly the predrill ambient levels. If the well produces marketable quantities of oil or gas, noise levels will rise periodically above predrill ambient levels.

Information Source: Field observation.

E. Water Resources

1. Hydrologic Character

a. Surface Waters: No significant impacts to surface water systems are expected, provided the operator maintains all adverse substances either on the pad or in a fluid-tight reserve pit. Minor increases in sediment load, resulting in siltation/sedimentation, could occur in nearby intermittent drainages.

Information Source: Field observation.

b. Groundwaters: The White Rim Sandstone, the Navajo, and the Wingate Formations may contain usable waters which should be sampled if encountered.

Information Source: ME, District Geologist.

2. Water Quality

a. Surface Waters: Impacts to surface water quality are judged as insignificant, provided the operator maintains a fluid-tight reserve pit.

Information Source: Field observation.

b. Groundwaters: Operator proposes 1076' of surface casing. Commingling of drilling fluids with potentially usable water could render groundwater unusable. Pits would be unlined.

Information Source: Application to Drill and Field observation.

F. Flora and Fauna

1. Endangered and Threatened Species Determination

Based on the field comments received from the USFS on August 8, 1980, we determine that there would be no effect on endangered and threatened species and/or their critical habitat.

2. Flora: Construction would remove about 2.18 acres of vegetation increasing potential for non-point erosion and decreasing soil fertility.

Information Source: Field observation.

3. Fauna: Vegetation removal reduces wildlife habitats and food sources. Deer are not known to winter in the area. No known migratory bird nesting areas, strutting or breeding grounds, or fish-spawning areas would be impacted by proposed action.

Information Source: USFS

G. Land Uses

1. General: Timber cutting, recreation and minor grazing are the major land uses. The amount and the quality of land available to livestock, wildlife, and recreationists would be reduced. Timber access would be improved.

Information Source: Field observation.

2. Affected Floodplains and/or Wetlands: N/A

Information Source: Field observation.

H. Aesthetics: Operation would not blend with natural surroundings. Most likely unappealing to recreationists. Impact duration: life of well.

Information Source: Field observation.

I. Socioeconomics: The effect of one well on local and regional population and economy would be considered minor. If major discovery, then consider: Population increase, community services taxed, resources depleted, cumulative impacts multiply, pipelines and transportation routes expand.

Information Source: G. Doyle, Environmental Scientist, USGS.

J. Cultural Resources Determination: Based on the field comments received from the USFS on August 8, 1980, we determine that there would be no effect on cultural resources subject to no stipulations.

Information Source: U. S. Forest Service

K. Adequacy of Restoration Plans: Rehabilitation plan meets the minimum NTL-6 requirements and must meet further USFS requirements.

Information Source: G. Doyle, Environmental Scientist, USGS.

Alternatives to the Proposed Action:

1. Disapproving the proposed action or no action - If the proposed action is denied, no action would occur, the existing environment would remain in its present state, the lessee/operator would not realize any return on investments and the public would be denied a potential energy source.

2. Approving the project with the recommended stipulations - Under federal oil and gas leasing provisions, the Geological Survey has a responsibility to approve mineral development if the environmental consequences are not too severe or irreversible. Permanent damage to the surface and subsurface would be prevented as much as possible under USGS and Surface Management Agency supervision. Environmental impacts would be significantly mitigated.

Adverse Environmental Effects:

1. If approved as proposed:

   a. About 2.18 acres of vegetation would be removed, increasing and accelerating erosion potential.

   b. Pollution of groundwater systems could occur with the introduction of drilling fluids into the aquifer(s). The potential for interaquifer leakage and lost circulation is ever-present, depending on the casing program.

   c. Minor air pollution would be induced on a temporary basis due to exhaust emissions from rig engines and support traffic.

   d. The potential for fires, leaks, spills of gas and oil or water exists.

   e. During construction and drilling phases of the operation, noise and dust levels would increase.

   f. Distractions from aesthetics during the lifetime of the project would exist.

g. Erosion from the site would eventually be carried as sediment in the Escalante River. The potential for pollution would exist through leaks and spills.

h. If hydrocarbons would be discovered and produced, further development of the area could be expected to occur, which would result in the extraction of an irreplaceable resource, and further negative environmental impacts. These impacts include the cumulative loss of wildlife habitat due to the areas necessary for roads, pipelines, drillsites, and transmission lines. These actions may disrupt wildlife social behavior and force habitat relocation over an extended period of time. In addition, the cumulative effects of non-point erosion become substantial in a developing field, primarily those located near perennial streams where siltation and sedimentation are critical to aquatic life cycles.

i. Other: Wildlife and livestock could be endangered by toxic or hazardous fluids in the reserve pit if it is not properly fenced.

T & E & Arch Clearance forthcoming from USFS

2. Conditional approval

a. All adverse impacts described in section one above would occur, except by fencing the reserve pit on three sides prior to drilling, and on the fourth side once the rig moves off, hazards posed by fluids to livestock and wildlife would be mitigated.

Recommended Approval Conditions:

Drilling should be allowed, provided the following mitigative measures are incorporated into the proposed APD and adhered to by the operator:

1. See attached Lease Stipulations.
2. See attached ~~BLM~~ USFS Stipulations.
3. Fence reserve pit on three sides prior to drilling, and on the fourth side once the rig moves off.
4. Sample any water shows from the Navajo, the Wingate, and the White Rim Formations.

Controversial Issues and Conservation Division Response: None at present.

We have considered the proposed action in the preceding pages of this EA and find, based on the analysis of environmental considerations provided therein, no evidence to indicate that it will significantly (40 CFR 1508.27) impact the quality of the human environment.

Determination

I determine that the proposed action (as modified by the recommended approval conditions) does not constitute a major Federal action significantly affecting the quality of the human environment in the sense of NEPA, Section 102(2)(C).

T&E & Arch Clear forthcoming from USFS
Note 9/8/80
Rec'd 9/11/80

District Engineer
U. S. Geological Survey
Conservation Division
Oil & Gas Operations
Salt Lake City District

9/17/80
Date

USD Form 3100-8
(December 1976)

Rio Oil & Gas
Well # 2
29-32S-3E

Serial No.

U-38347
Oil and Gas Lease

SURFACE OCCUPANCY STIPULATION

1. Lessee agrees not to enter upon the lease area or disturb the surface for exploration or drilling purposes until either:

(a) An inventory of archeological, paleontological, and historical sites is made by the surface management agency or its designated representative, or

(b) Lessee has made or caused to be made an inventory of all archeological, paleontological, and historical sites in those areas of the lease subject to development, occupancy, or surface disturbance. The survey must be made by a qualified archeologist acceptable to the surface management agency and the results of this survey provided to the surface management agency. Costs of this survey will be borne by the lessee. After inventory by either lessee's archeologist or the surface management agency, reasonable conditions of use will be prepared to protect the sites or salvage objects of antiquity in accordance with the Antiquities Act of June 8, 1906 (34 Stat. 225; 16 USC 431), and the Historical Sites Act of August 21, 1935 (49 Stat. 666; 16 USC 461-467). Costs of salvage of artifacts will be borne by the lessee and all objects of antiquity salvaged will remain the property of the U. S. Government.

2. No occupancy of the surface in the following areas is authorized by this lease. The lessee may employ directional drilling to develop the oil and gas resources under these areas, provided that such drilling or other works will not disturb the surface area or otherwise interfere with their use by the surface management agency. The areas to be excluded from surface occupancy unless specifically approved in the operating plan are:

(a) Within 500 feet on either side of the centerline of any and all roads and/or highways within the lease area.

(b) Within 200 feet on either side of the centerline of any and all designated trails within the lease area.

(c) Within 500 feet of the normal high waterline of any and all streams, lakes, ponds, and reservoir located within the lease area.

(d) Within 400 feet of any and all springs within the lease area.

(e) Within 400 feet of any improvements either owned, permitted, leased, or otherwise authorized by the surface management agency.

ATLANTIC RICHFIELD COMPANY AUG 7 RE

By:

Lessee [illegible]
attorney-in-fact

Natural Resources Input June 7, 1980

2820 Leases and Permits
Arco-Escalante #2

Affected Environment

The present environment of the proposed project is one of a rehabilitated project that is stable for the most part. The prior drilling project consisted of an access road and drill pad. There has been some environmental degradation from plugged culverts and water running off the pad which head cut the road. However, the pad and access road have generally been revegetated and stabilized.

Effects of Implementation

Alternative "A" - No change

Same as "Affected Environment" section.

Alternative "B" - Allow access to existing pad location via the road up the Sand Creek drainage.

The vegetation and organic matter that has stabilized the existing facilities will be removed, thus setting plant succession back and rendering the site vulnerable to erosion. Wildlife sanctuary along this stream bottom will be interrupted for the project duration.

Improved drainage from project reconstruction will prevent some of the erosion that is now taking place.

Any time an area is opened up to a project and/or motor vehicle access, litter and foreign debris become an unsightly and sanitary problem.

Issues and Concerns

1. Destruction of existing vegetation within the road that has rehabilitated the disturbed site.

2. The removal of trees that have rehabilitated the existing drill pad.

3. Debris and litter that could be brought in by opening the area up.

4. Stability of facilities following completion of project.

Mitigating Requirements

1. The road will be bladed only where necessary to allow vehicles to travel safely; thus, leaving the existing vegetation and root crowns to rehabilitate the road. A draft hose will be used to transport water from the creek to the drill pad which will reduce vegetative damage due to excessive vehicular traffic.

2. The drill rig should be placed on the pad in a manner that will protect the larger ponderosa pine saplings that have inhabited the pad. Portable tanks will be used for water and mud storage to avoid excessive disturbance from pond construction.

3. All debris and litter brought into the area while the road is open will be the responsibility of ARCO.

4. Following completion of the drilling project the road and pad will be maintained, seeded, and closed to Forest Service standards. (Seed mixture: Crested wheat 5 lbs/ac, smooth brome 5 lbs/ac. and Russian wild rye 5 lbs/ac.)

Millard A. Dumas III

MILLARD A. DUMAS III
Supervisory Forester

Affected Environment

The Arco-Escalante #2 drill site proposal is located approximately 1 1/2 miles up Sand Creek. The site was previously accessed and developed in the mid sixties when exploratory drilling was originally accomplished. An existing road extends from the Hells Backbone Road (F.S. #30153) to the existing pad location. The road has not been maintained for several years, but with the exception of several drainage problems, is in fair condition. The road traverses through a variety of soil types consisting mainly of sands and clays. Without surfacing, trafficability problems could be expected.

The Grimes Creek Timber Sale, which is scheduled to be sold in F.Y. 81, encompasses the area. The proposed road access to the pad location will be needed to harvest timber from the Sand Creek drainage when timber is harvested from the area.

Without the proposal the area will remain basically unchanged except for timber harvest activities. Washouts and plugged culverts would be corrected under the timber sale contract and erosion hazards would be lessened at that time.

Effects of Implementation

Alternative "A" - No change.

Same as "Affected Environment" section.

Alternative "B" - Allow access to existing pad location via road up Sand Creek drainage.

Access to the existing pad site can be readily provided by placing additional culverts and dips at designated locations and doing minor reshape and finish work to the existing road. The road is approximately 14 feet wide, contains both outsloped and ditched sections, and varies gradewise between 0 and 10%. A thin shale type surfacing has been placed on select portions of the road and should be adequate for limited use.

The first live water crossing has washed out and will require the re-installation of a 24" culvert. The culvert existing at the washout appears to be in good condition and may be adequate for re-installation if it proved to be undamaged when its removed. The flow of the stream should be diverted back into its original channel and the roadbed reshaped to its original cross-section.

In two places, side drainages enter the roadway in through cut sections. The first of these areas should be dipped at the wash location, and ditched along the lower side of the road to the drainage just below the wash area.

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Mid-Continent Oil & Gas Reserves

3. ADDRESS OF OPERATOR: 12700 Park Central Place, Suite 1404, Dallas, Texas 75251

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: NE NW Section 13, T33S-R2E; 501' FNL, 2078' FWL
At proposed prod. zone

5. LEASE DESIGNATION AND SERIAL NO.: ~~U-53741~~ U-53744

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Charger

9. WELL NO.: #4 Charger

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 13, T33S-R2E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 18.2 miles north of Escalante, Utah

12. COUNTY OR PARISH: Garfield

13. STATE: Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 501' FNL

16. NO. OF ACRES IN LEASE: 1,720.00

17. NO. OF ACRES ASSIGNED TO THIS WELL: 80

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.:

19. PROPOSED DEPTH: 3850'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 8291.0 GR

22. APPROX. DATE WORK WILL START*: June 1, 1984

23. PROPOSED CASING AND CEMENTING PROGRAM

24.

SIGNED John D. Slawter TITLE President DATE 4/20/84

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY M L Jensen TITLE District Manager DATE 12 Sept. 1984

CONDITIONS OF APPROVAL, IF ANY:

Conditions of Approval are attached

FLARING OR VENTING OF GAS IS SUBJECT TO NTL4-A DATED 1/1/80

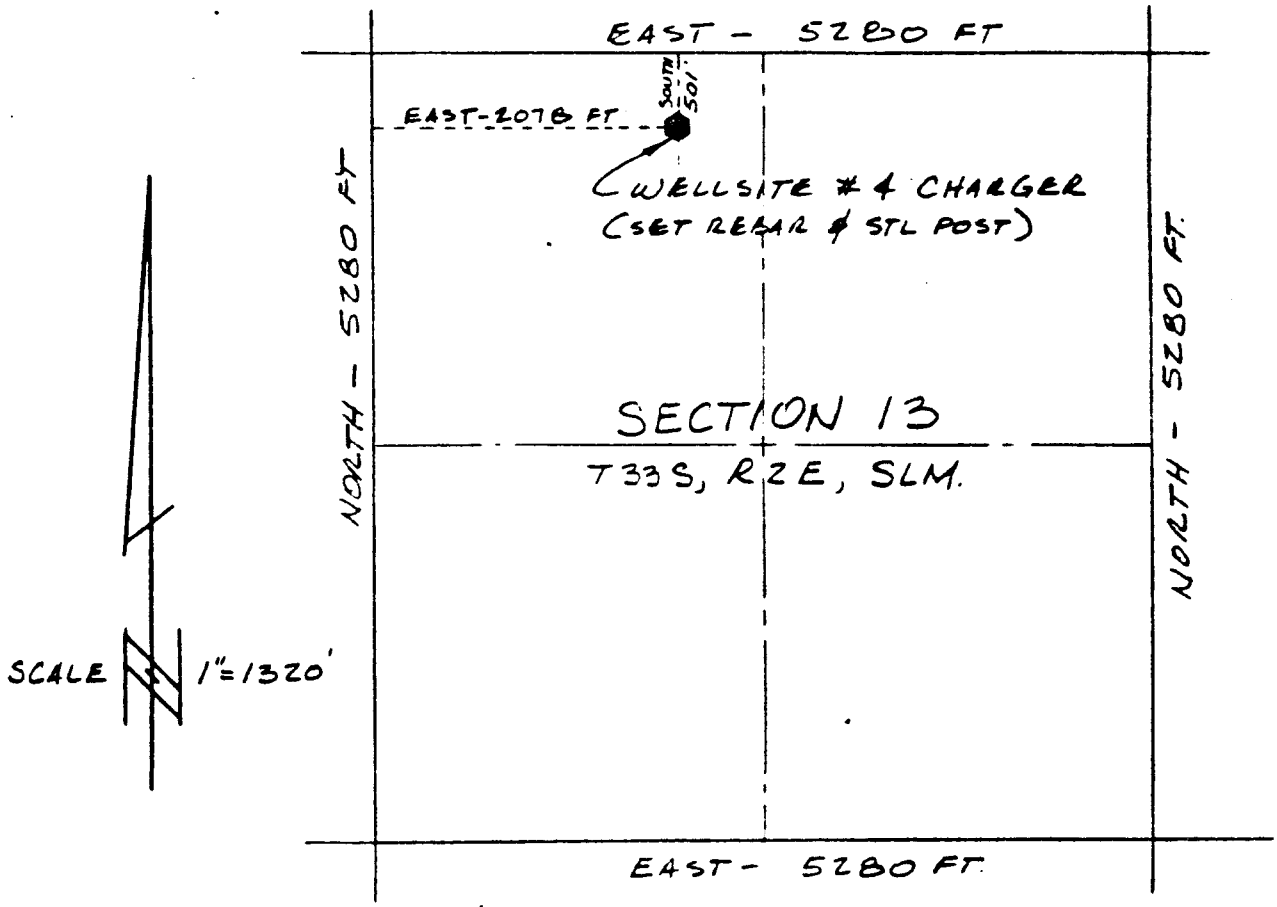
CONDITIONS OF APPROVAL ATTACHED TO OPERATORS COPY

NOTICE OF APPROVAL

EXHIBIT "A"

REGISTERED LAND SURVEYOR
STATE OF UTAH

OPERATOR:	Mid-Continent Oil Company
WELL NUMBER:	#4 Charger
LOCATION:	Section 13, T33S, R2E, SLM
COUNTY:	Garfield
STATE:	Utah
ELEVATION:	Ground = 8291.0



REF marker #1-Nail at top of Stake in 18" diameter Pine located N 5°33' W, 179.67 feet from the center of well.
Elevation = 8296.3 (VABM)

REF marker #2 (rebar) - located S 77°30'W 419.59 feet from the center of well.
Elevation = 8351.2 (VABM)

Note: This well site falls within an unsurveyed area and the sectional ties shown are based on BLM protraction diagrams as they relate to section 25, T33S, R3E, SLM.

BULLOCH BROS. ENGINEERING INC.
CEDAR CITY, UTAH

WELL LOCATION MAP
#4 CHARGER
Mid-Continent Oil Company
Dallas, Texas

DATE 5/19/84
SCALE 1"=1350'
DRAWN N.L. RHODES

ORLYN TERRY • GEOLOGIST • OIL & GAS PROPERTIES
DIAMOND HILL, SUITE 470-C, 2460 WEST 26TH AVENUE, DENVER, COLORADO 80211 (303) 573-6166

April 24, 1984

CERTIFIED #1117980
RETURN RECEIPT REQUESTED

Division of Oil, Gas & Mining
State of Utah
4241 State Office Building
Salt Lake City, Utah 84114

Dear Sir:

Re: Filing NTL-6 and APD #9-331C
Mid-Continent Oil and Gas
Reserves, Inc.
#4 Charger
NE NW Sec. 13, T33S-R2E
Garfield County, Utah

Enclosed please find three copies of the Application for Permit to Drill and the NTL-6 program for the above-referenced well location.

Copies have also been sent to Mr. Ed Guynn, Chief of Branch of Fluid Minerals for his approval.

An application for a water permit is being filed. The approval will be forwarded to you immediately.

Very truly yours,

Orlyn Terry

OT:cr

Enclosures

cc: Mid-Continent Oil & Gas Reserves, Inc.
ARCO Exploration Company

022303

OPERATOR Mid-Continent Oil & Gas Reserves DATE 4/27/84

WELL NAME Charges #4

SEC NENW 13 T. 33S R. 2E COUNTY Garfield

43-017-30122	Fed.
API NUMBER	TYPE OF LEASE

POSTING CHECK OFF:

☐ INDEX	☐ HL	☐
☐ NID	☐ PI	☐
☐ MAP	☐	☐

PROCESSING COMMENTS:

No other gas wells within 4960'.

Need water permit

APPROVAL LETTER:

SPACING: ☐ A-3 _____ UNIT ☐ c-3-a _____ CAUSE NO. & DATE

☑ c-3-b ☐ c-3-c

SPECIAL LANGUAGE:

1-Water

- [x] RECONCILE WELL NAME AND LOCATION ON APD AGAINST SAME DATA ON PLAT MAP.
- [x] AUTHENTICATE LEASE AND OPERATOR INFORMATION
- [x] VERIFY ADEQUATE AND PROPER BONDING
- [x] AUTHENTICATE IF SITE IS IN A NAMED FIELD, ETC.
- [ ] APPLY SPACING CONSIDERATION
  - [ ] ORDER _____
  - [ ] UNIT _____
  - [x] c-3-b
  - [ ] c-3-c
- [ ] CHECK DISTANCE TO NEAREST WELL.
- [ ] CHECK OUTSTANDING OR OVERDUE REPORTS FOR OPERATOR'S OTHER WELLS.
- [ ] IF POTASH DESIGNATED AREA, SPECIAL LANGUAGE ON APPROVAL LETTER
- [ ] IF IN OIL SHALE DESIGNATED AREA, SPECIAL APPROVAL LANGUAGE.

ORLYN TERRY • GEOLOGIST • OIL & GAS PROPERTIES
DIAMOND HILL, SUITE 470-C, 2460 WEST 26TH AVENUE, DENVER, COLORADO 80211 (303) 573-6166

May 10, 1984

Mr. Edgar Guynn, Chief
Bureau of Land Management
136 East South Temple
Salt Lake City, Utah 84111

Dear Mr. Guynn:

Re: #4 Charger
NE NW Sec.13, T33S-R2E
Garfield County, Utah

This letter is to advise you that Mid-Continent Oil & Gas Reserves, Inc. intends to use Escalante municipal water acquired from Lincoln Lyman Construction Company to drill the subject lease.

For this reason, we have requested the return of our "Application for Temporary Change of Point of Diversion" from the State of Utah Natural Resources and Energy Department.

Very truly yours,

Orlyn Terry

OT:cr

cc: Lincoln Lyman
Mid-Continent Oil & Gas Reserves, Inc.
Dorothy Bolton, Division of Water Rights
Gerald Stoker, Engineer State Water Department
Frank Jensen, Dixie National Forest

May 10, 1984

Mid-Continent Oil & Gas Reserves
12700 Park Central Place, Suite 1404
Dallas, Texas 75251

RE: Well No. Charger #4
NENW Sec. 13, T. 33S, R. 2E
501' FNL, 2078' FWL
Garfield County, Utah

Gentlemen:

Approval to drill the above referenced gas well is hereby granted in accordance with Rule C-3 (b), General Rules and Regulations and Rules of Practice and Procedure, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water.

In addition, the following actions are necessary to fully comply with this approval:

1. Spudding notification to the Division within 24 hours after drilling operations commence.

2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.

3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify R. J. Firth, Associate Director, Telephone (801) 533-5771 (Office), 571-6068 (Home).

4. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-017-30122.

Sincerely,

R. J. Firth
Associate Director, Oil & Gas

RJF/as
cc: Branch of Fluid Minerals
Enclosures

ORLYN TERRY • GEOLOGIST • OIL & GAS PROPERTIES
DIAMOND HILL, SUITE 470-C, 2460 WEST 26TH AVENUE, DENVER, COLORADO 80211 (303) 573-6166

May 10, 1984

Mr. Edgar Guynn, Chief
Bureau of Land Management
136 East South Temple
Salt Lake City, Utah 84111

Dear Mr. Guynn:

Re: #4 Charger
NE NW Sec.13, T33S-R2E
Garfield County, Utah

This letter is to advise you that Mid-Continent Oil & Gas Reserves, Inc. intends to use Escalante municipal water acquired from Lincoln Lyman Construction Company to drill the subject lease.

For this reason, we have requested the return of our "Application for Temporary Change of Point of Diversion" from the State of Utah Natural Resources and Energy Department.

Very truly yours,

Orlyn Terry

OT:cr

cc: Lincoln Lyman
Mid-Continent Oil & Gas Reserves, Inc.
Dorothy Bolton, Division of Water Rights
Gerald Stoker, Engineer State Water Department
Frank Jensen, Dixie National Forest

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Box 246
Escalante, UT 84726

2820
June 26, 1984

Mr. George Peternel
BLM Area Manager
Escalante, UT 84726

Dear George,

We recently had an onsite inspection for Mid-Continent Oil and Gas Charger #3, and Charger #4. The following people attended:

Attendees	Representing
Lincoln Lyman	Lyman Construction
George Peternel	BLM
Quay Simons	BLM
Paul Carter	BLM
Don Shultz	Forest Service
Dave Dallison	" "
Doug Austin	" "
Ralph Rawlinson	" "
Bill Sheehan	" "
Orlyn Terry	Mid-Continent Oil & Gas
Ed Guynn	BLM Utah State Office - Branch of Fluid Minerals
Jim Fouts	" " "
John Baz	Division of Oil & Gas & Mining Utah Dept. of Natural Resources

These onsites were done in conjunction with a strategy meeting for development of the CO_2 field in the Escalante Anticline.

Charger #3:

(1) All activities on Charger #3 should be coordinated with Allied Forest Products and Escalante District Ranger to avoid conflicts with the Hungry Creek Timber Sale.

(2) Clearing must be held to a minimum on this well site. Trees marked in blue paint will be removed via Hungry Creek Timber Sale. All trees removed will be designated by Escalante Ranger District personnel.

RECEIVED

SEP 17 1984

DIVISION OF OIL
GAS & MINING

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Company Mid-Continent Oil and Gas Reserves, Inc. Well No: 4 Charger

Location 501' FNL, 2078' FWL Sec. 13, T33S, R2E Lease No: U-53744

A COPY OF THESE CONDITIONS SHOULD BE FURNISHED YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (30 CFR 221), and the approved plan of operations. The operator is considered fully responsible for the actions of his subcontractors. The following items are emphasized:

1. There shall be no deviation from the proposed drilling and/or workover program as approved. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned shall be identified in accordance with 30 CFR 221.22. Any changes in operations must have prior approval of this office. Pressure tests are required before drilling out from under all casing strings set and cemented in place. Blowout preventer controls must be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to insure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs. All BOP pressure tests must be recorded on the daily drilling report.

2. All shows of fresh water and minerals will be reported and protected. A sample will be taken of any water flows and furnished this office for analysis. All oil an gas shows will be adequately tested for commercial possibilities, reported and protected.

3. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of this office. If operations are to be suspended, prior approval of this office must be obtained and notification given before resumption of operations.

   In the event abandonment of the hole is desired, an oral request may be granted by this office, but must be timely followed within 15 days with a "Notice of Intention to Abandon" (Form 9-331). Unless the plugging is to take place immediately upon receipt of oral approval, the District Manager must be notified at least 48 hours in advance of the plugging of the well in order that a representative may witness plugging operation. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form 9-331) must be submitted within 15 days after the actual plugging of the well bore, reporting where the plugs were placed, and the current status of the surface restoration. If surface restoration has not been completed at that

time, a followup report on Form 9-331 should be filed when all surface restoration has been completed and the location is considered ready for final inspection.

4. The spud date will be reported orally to the respective District Manager's office within 48 hours after spudding. If the spudding occurs on a weekend or holiday, wait until the following regular workday to make this report.

   Periodic drilling progress reports must be filed directly with the District Office on a frequency and form or method as may be acceptable to the District Manager.

   In accordance with NTL-1, this well must be reported on Form 9-329 "Monthly Report of Operations," starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report should be filed, in duplicate, directly with Royalty Management Accounting Center, Minerals Management Service, P.O. Box 2859, Casper, Wyoming 82602.

   Any change in the program must be approved by the District Manager. "Sundry Notices and Reports on Wells" (Form 9-331) must be filed for all changes of plans and other operations in accordance with 30 CFR 221.58. Emergency approval may be obtained orally, but such approved does not waive the written report requirement. Any additional construction, reconstruction, or alteration of the facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground will require the filing of a suitable plan pursuant to NTL-6, and prior approval by the District Manager.

5. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 9-330) will be submitted not later than 15 days after completion of the well or after completion of operations being performed, in accordance with 30 CFR 221.59. Two copies of all logs run, core descriptions, core analyses, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with form 9-330. Samples (cutting, fluid, and/or gas) will be submitted only when requested by this office.

6. Significant surface values are involved at this location. Accordingly, you must notify at least 48 hours prior to commencing field operations to allow the Bureau of Land Management and Forest Service to have personnel present for consultation during the construction of roads and locations.

   The Cedar City District Office Address is:

   1579 North Main, Cedar City, Utah 84720
   (801) 586 2401

   Your contact is: Theron Mitchell
   Office Phone: (801) 586 2401
   Home Phone: (801) 826 4347 or 586 2719

7. Unless otherwise specified herein, construction and maintenance of surface facilities approved under this plan shall be in accordance with the guidelines set forth in the BLM/FS/GS Oil and Gas Brochure entitled, "Surface Operating Standards for Oil and Gas Exploration and Development." This includes but is not limited to such items as road construction and maintenance, handling of top soil and rehabilitation.

8. If a replacement rig is contemplated for completion operations, a "Sundry Notice" to that effect must be filed, for prior approval of the District Manager, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

9. Pursuant to NTL-2B requirements regarding disposal facilities for new wells, this is authorization for unlined pit disposal of the water produced from this well for a period of 90 days from the date of initial production for sales purposes. During this period, an application for approval of the permanent disposal method, along with the required water analysis and other information must be submitted for the District Manager's approval. Failure to timely file an application within the time allowed will be considered an incident of noncompliance, and will be grounds for issuing a shut-in order until the application is submitted.

10. This permit is valid for a period of one year from the date of approval. If construction does not commence within 90 days from approval, the operator must contact this office 15 days prior to beginning construction. Construction under adverse conditions may require additional stipulations. If the permit terminates, any surface disturbance created under the application must be rehabilitated in accordance with the approved plan. After termination, it is required that a new application be filed for approval for any future operations.

11. If a tank battery is constructed on this lease, it must be surrounded by a fire wall of sufficient capacity to adequately contain the storage capacity of the battery.

12. This Application for Permit to Drill is approved subject to the requirement that, should the well be successfully completed for production, this office must be notified when it is placed in a producing status. Such notification will be by telegram or other written communications, and must be received in this office by not later than the first business day next following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    a. Operator name, address and telephone number.

    b. Well name and number.

    c. Well location (¼,¼ Section, Township, Range and Prime Meridian).

    d. Date was placed in a producing status.

    e. The nature of the well's production, i.e. crude oil, or crude oil and casinghead gas, or natural gas and entrained liquid hydrocarbons.

f. The OCS, Federal or Indian lease prefix and number on which the well is located, otherwise, the non-Federal or non-Indian land category, i.e. State or private.

g. If appropriate, the unit agreement name, number and participating area name.

h. If appropriate, the communitization agreement number.

SUPPLEMENTAL STIPULATIONS OF APPROVAL ATTACHED

1. The Forest Service representative (Dave Dallison, 801 826 4221) will be notified at least 48 hours prior to any surface disturbing activities associated with new access roads or drill pad location. A representative of the Forest Service will be present before construction activity begins to review and explain surface protection stipulations with the operator and/or dirt work contractor.

2. Mid-Continent shall designate a respresentative from the company who will be available on site to insure complete compliance with all stipulations. Forest Service and the Bureau of Land Management shall be given the name of the responsible individual.

3. The Mid-Continent representative shall insure that all individuals working at or near the location are aware of and comply with all applicable stipulations.

4. Mid-Continent will conduct a cultural resource survey. This survey will be done by a Forest Service approved archaeologist prior to any ground disturbing activities.

5. If subsurface cultural material is exposed during construction, work will stop immediately in that spot and the Escalante Ranger Station will be contacted.

6. The access road will be constructed in accordance with these stipulations and the BLM/FS/GS Surface Operating Standards and Forest Service "Standards for low volume, intermittent use, specified local roads." The access road shall be constructed where flagged with total surface disturbance for the roadbed and drainage confined to a maximum of 18 feet. Drainage across the road shall be provided for at such intervals as to prevent gullying on the downslope side of the road. Road berms shall be pulled in. The road grade should be rolled with the surface of the ground as much as possible to provide natural drainage. Additional specific construction procedures may be provided by the Forest Service representative during construction.

7. Clearing should be kept to a minimum to maintain vegetative screening of the road. The trees cleared (chainsaw only) from the pad area and access road route shall be limited to those whose presence would be significantly detrimental to the efficiency or safety of the operation as determined by the District Manager. Trees shall not be cut along the access route where limbing would provide sufficient clearance. Pad borders will be left irregular to simulate natural terrain and vegetation lines. Trees removed shall be cut into pieces

and manually scattered at least 10 feet from the edge of the road or pad. Scattered debris shall be of such size as not to extend from the ground more than 2 feet. Stumps of any trees cut adjacent to the road or pad shall be removed and scattered as above and stump holes filled with soil material.

8. If drilling is to be conducted between November 1 and July 15, a raptor survey by helicopter of cliff areas within one mile of access road will be conducted by a qualified biologist approved by the Forest Service.

9. The qualified biologist will also conduct a survey of spotted owl nesting habitat if drilling is conducted during spring (April 1 to July 30).

10. Western Bluebirds nest in the area. Removal or destruction of snags other than those immediately in the path of construction activity will not be allowed.

11. If the well is to become a producer and the area is not designated wilderness the road should be surfaced due to sandy soil conditions.

12. Topsoil on the pad site shall be removed to 6 inches deep and stockpiled in a manner to minimize soil loss to wind and water erosion. Stockpiles shall be rounded-off and located so that soil is not contaminated or compacted. In the event that the well is a producer, soil stockpiles shall be seeded. A seed mix will be provided by the Forest Service.

13. Cleanup of all trash and debris brought into the area during drilling will be the responsibility of Mid-Continent Oil and Gas. Garbage or burn pits will not be allowed. Mid-Continent shall cooperate with other right-of-way holders along access routes to insure that litter is collected and removed.

14. Mud pits shall be based in at least four feet of cut material, that is with at least four feet of the pit below the existing ground surface, with any embankment of fill material key seated to ensure pit stability and fluid retention. Lining of pit is not considered necessary.

15. Reclamation shall include contouring of the pad to blend with land-forms in the general area, redistribution of topsoil and seeding. Seeding shall be accomplished during the period of September to December. A seed mix and seeding method will be provided by the Forest Service with the advent of reclamation.

16. Any production facilities will be painted a single, low gloss, pastel color that will blend with the color of soils, rock or vegetation. Color will be approved by the Forest Service.

17. Upon completion of drilling operations, the Cedar City District Office shall be notified of production and/or reclamation plans so that an inspection may be conducted to determine if mitigating measures in addition to those included in the surface use plan or presented hereby are necessary.

Charger #4:

Due to the sensitive nature of this area, recommendations for stipulations will be outlined in the EA to be written by the BLM at a later date. Forest Service input to this EA will be forthcoming as soon as we get clarification of the wilderness issues involved.

Sincerely,

David T. Dallmann

for
DOUGLAS W. AUSTIN
District Forest Ranger

cc: S.O.
Orlyn Terry

ORLYN TERRY • GEOLOGIST • OIL & GAS PROPERTIES

~~[illegible] DENVER, COLORADO [illegible]~~
3000 Youngfield Suite 338 Denver Colo 80215

Ron Firth
Utah Oil & Gas
Commission
4241 State Office Bldg.
Salt Lake City Utah 84114

Dear sirs,

Pursuant to our telephone conversation I am enclosing notice of intent to drill the #2 Charger and the #4 Charger.

VTY

Orlyn Terry

cc Mid Continent

Form OGC-1b

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: U-53744

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: —

1. OIL WELL ☐ GAS WELL ☐ OTHER

7. UNIT AGREEMENT NAME: —

2. NAME OF OPERATOR: Mid continent oil & Gas Reserves Inc

8. FARM OR LEASE NAME: Govt

3. ADDRESS OF OPERATOR: 12,700 park central pl #404 Dallas Texas 75251

9. WELL NO.: #4 charger

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: NE NW sec 13 T33S-R2E 501' FNL 2078' FWL

10. FIELD AND POOL, OR WILDCAT: Death Hollow

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: sec 13-T33S-R2E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 8291.0 Ground

12. COUNTY OR PARISH: Garfield

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			☐
(Other) Drill			☒	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Notice of intent to spud well approx Oct 2nd 1984.

18. I hereby certify that the foregoing is true and correct

SIGNED [signature] TITLE Authorized Agent DATE 9/28/84

(This space for Federal or State office use)

APPROVED BY ______ TITLE ______ DATE ______
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

W/ok
Gerald Stoker/Wtr Rts

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

API #43-017-30122

NAME OF COMPANY: MIDCONTINENT OIL & GAS COMPANY

WELL NAME: CHARGER #4

SECTION NE NW 13 TOWNSHIP 33S RANGE 2E COUNTY Garfield

DRILLING CONTRACTOR _____

RIG # _____

SPUDDED: DATE 10-8-84

TIME _____

HOW _____

DRILLING WILL COMMENCE _____

REPORTED BY Jack W.

TELEPHONE # _____

DATE 10-9-84 SIGNED _____

Form OGC-1b

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☐ OTHER

2. NAME OF OPERATOR: Mid continent oil & Gas Reserves Inc

3. ADDRESS OF OPERATOR: 12,700 park central pl #1404 Dallas Texas 75251

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: NE NW sec 13 T33S-R2E 501' FNL 2078' FWL

5. LEASE DESIGNATION AND SERIAL NO.: U-53744

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: —

7. UNIT AGREEMENT NAME: —

8. FARM OR LEASE NAME: Govt

9. WELL NO.: #4 Charger

10. FIELD AND POOL, OR WILDCAT: Death Hollow

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: sec 13-T33S-R2E

12. COUNTY OR PARISH: Garfield

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 8291.0 ground

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			
(Other)	Drill		☒	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

Notice of intent to spud well approx Oct 2nd 1984

RECEIVED
OCT 15 1984
DIVISION OF OIL
GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED Dolyn Terry TITLE Authorized Agnt DATE 9/28/84

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

MID-CONTINENT OIL

Executive Offices:
12700 Park Central Place, Suite 1404
Dallas, Texas 75251
214/233-3380 • 214/233-3381

November 27, 1984

State of Utah Natural Resources
Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT. 84114

Attn: Ms. Dianne R. Nielson, Director

RE: Your letter of September 8, 1984.....
Confidentiality Guidelines

Dear Ms. Nielson:

Thank you for your letter of September 8th informing us of the new guidelines established by the Utah State Legislature during 1983 General Session, now known as Utah Senate Bill #157.

Enclosed herewith is a Xerox copy of certain information submitted by Orlyn Terry, a Denver based consulting geologist for this company. Unfortunately, we are not satisfied with Mr. Terry's attention to details, etc. We, therefore, would like all correspondence and future notices be addressed to Mid-Continent Oil Company, 12700 Park Central Place, Suite 1404, Dallas, TX. 75251 to the attention of Ms. Sandra Sparks, Corporate Secretary.

Due to the fact that the undated letter from Orlyn Terry to someone in the Utah Oil and Gas Commission is not legible, I would appreciate if you would see that this letter and the enclosed forms OGC 1b, be delivered to the proper authority with instructions that he contact our office relative to any and all information needed to up date your records in Salt Lake.

Thank you very much for your courtesy.

Very truly yours,

John D. Slawter,
President

Enclosures as stated

cc: Ms. Sandra Sparks
Mr. W. W. Hall, P.E.
Ms. Dorothy B. Swindel
Mr. Daniel Jarvis

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dianne R. Nielson, Ph.D., Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

January 4, 1985

Ms. Sandra Sparks
Corporate Secretary
Mid Continent Oil
12700 Park Central Place, Suite 1404
Dallas Texas 75251

Dear Ms. Sparks:

Re: Well No. Charger #4 - Sec. 13, T. 33S., R. 2E.
Garfield County, Utah - API #43-017-30122

Our records indicate that your company has not filed the monthly drilling reports for the months of October to the present on the above referred to well. It is necessary to provide monthly status or drilling reports for all wells which have been spudded, but not completed.

Please complete the enclosed forms and forward them to this office as soon as possible, but not later than February 5, 1985.

Your prompt attention to this matter will be greatly appreciated.

Sincerely,

Claudia L. Jones

Claudia L. Jones
Well Records Specialist

Enclosures (3)
cc: Dianne R. Nielson
Ronald J. Firth
John R. Baza
File
0051S/6

Form OGC-1b

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: U-53744

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

1. OIL WELL ☐ GAS WELL ☒ OTHER

7. UNIT AGREEMENT NAME: N/A

2. NAME OF OPERATOR: Mid-Continent Oil & Gas Reserves, Inc.

8. FARM OR LEASE NAME: Charger

3. ADDRESS OF OPERATOR: 12700 Park Central Place #1404, Dallas, Texas 75251

9. WELL NO.: #4 Charger

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: NE NW Section 13, T33S-R2E: 501' FNL, 2078' FWL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 13, T33S-R2E

14. PERMIT NO.: 43-017-30122

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 8,291.0 GR

12. COUNTY OR PARISH: Garfield

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) status report			☐
(Other)			☐	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

The Charger #4 is in a completed status, with the exception of the following:

1. Setting the 5½" stainless steel christmas tree, including dual gate valves, butterfly valves, etc.
2. The wellhead, spool, gate valves and other allied fittings are on abck order from First National Pipe, Grand Junction, CO. Delivery date is projected to be during the month of June, 1985.
3. The 4½" production string will be perforated when subject christmas tree and allied equipment has been installed.
4. This well will not be produced until production contracts for the use of CO2 have been negotiated. It is anticipated that these CO2 sales contracts will be completed when subject area (i.e. Escalante structure) has been proven to no less than one trillion cubic feet of CO2 gas reserves.

RECEIVED
JAN 25 1985
DIVISION OF
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED S. B. Sparks TITLE Corporate Secretary DATE 1/15/85

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGC-1b

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5. LEASE DESIGNATION AND SERIAL NO.: U-53744

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

1. OIL WELL ☐ GAS WELL ☒ OTHER

RECEIVED
APR 19 1985
DIVISION OF OIL GAS & MINING

7. UNIT AGREEMENT NAME: N/A

2. NAME OF OPERATOR: Mid-Continent Oil & Gas Reserves, Inc.

8. FARM OR LEASE NAME: Charger

3. ADDRESS OF OPERATOR: 12700 Park Central #1404 Dallas, Texas 75251

9. WELL NO.: #4 Charger

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: NE NW Section 13, T33S-R2E: 501' FNL, 2078' FWL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 13, T33S-R2E

14. PERMIT NO.: 43-017-30122

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 8,291.0 GR

12. COUNTY OR PARISH: Garfield

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) status report			
(Other)	☐			(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

The Charger #4 is in a completed status, with the exception of the following:

1. Setting the 5½" stainless steel christmas tree, including dual gate valves, butterfly valves, etc.
2. The wellhead, spool, gate valves and other allied fittings are on back order from First National Pipe, Grand Junction, CO. Delivery date is projected to be during the month of June, 1985. The 4½" production string will be perforated when subject christmas tree and allied equiptment has been installed. This well will not be produced until production contracts for the use of CO_2 have been negotiated. It is anticipated that these CO_2 sales contracts will be completed when subject area (i.e. Escalante structure) has been proven to no less than one trillion cubic feet of CO_2 gas reserves.

18. I hereby certify that the foregoing is true and correct

SIGNED S. B. Sparks TITLE Corporate Secretary DATE 4/15/85

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

July 29, 1985

Mid-Continent Oil & Gas Reserves
12700 Park Central #1404
Dallas, Texas 75251

Gentlemen:

Re: Well No. Charger 4 - Sec. 13, T. 32S., R. 2E., Garfield County, Utah - API #43-017-30122

This letter is to advise you that the "Well Completion or Recompletion Report and Log" for the above referenced well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, and forward it to this office as soon as possible, but not later than August 12, 1985.

Sincerely,

Pam Kenna

Pam Kenna
Well Records Specialist

Enclosure
cc: Dianne R. Nielson
Ronald J. Firth
John R. Baza
File

0170S/8

Form OGC-3

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

56 64 01

071402

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other CO_2

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: Mid-Continent Oil & Gas Reserves Inc.

3. ADDRESS OF OPERATOR: 12700 Park Central #1404, Dallas, Texas, 75251

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: NE NW Section 13,T33S, R2E;501'FNL,2078'FWL
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: U-53744
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
7. UNIT AGREEMENT NAME: N/A
8. FARM OR LEASE NAME: Charger
9. WELL NO.: #4 Charger
10. FIELD AND POOL, OR WILDCAT: Wildcat
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 13, T 33S, R2E

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
43-017-30122	9-12-84	Garfeild	Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
10-1-84	11-2-84	See No. 31	8291'GL 8301'KB	8401'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
		N/A	→	Yes	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: Kaibab 3366' - 3474' Sinbad-Moenkopi 3185' - 3230' Shinarump - Chinle 2830' - 2850'

25. WAS DIRECTIONAL SURVEY MADE: yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Sidewall Neutron, Formation Density 2 mud

27. WAS WELL CORED: NO

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	48.0	120' KB	17½"	4 yds.	N/A
9 5/8"	36.0	1460' KB	12¼"	500 sacks plus 6 yds	N/A
7 "	23.0	2326' KB	7 7/8"	completed open hole with a	sequence of metal
4 ½"	10.5	3726' KB	6 3/4"	baskets set at non-producing intervals &	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
n/a	n/a	n/a	n/a	n/a

30. TUBING RECORD — Cemented

SIZE	DEPTH SET (MD)	PACKER SET (MD)
n/a	n/a	n/a

31. PERFORATION RECORD (*Interval, size and number*)
This well will not be perforated until production contracts for the use of CO2 have been negotiated.It's anticipated that these CO2 sales contracts will be completed when one trillion cubic feet of CO2 gas reserves to sothern California Basin is underway.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
(a continuation of #31)	~~the subject area has been proven to no less than pipeline system from subject~~ ~~. Engineering for~~

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
See item #31	N/A	N/A Operation Suspended

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
See Flow Test Sheet Attached							

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
N/A			N/A	59.52 MMCFPD		

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Will be used for EOR purposes when a pipeline is completed

TEST WITNESSED BY

35. LIST OF ATTACHMENTS: Flow Sheet, Geology Report, Sidewall Neutron Formation Density Log

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED S. B. Sparks TITLE Corporate Secretary DATE 9/30/85

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: "*Sacks Cement*": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
			Wellsite geologist report attached which includes, but is not limited to all of the information requested in Item #37 and Item #38			

Mid-Continent Oil Co.
Charger #4

DISCUSSION

The decision to run production casing for a completion attempt in the carbon dioxide zones in the Mid-Continent Charger #4 was based on flow tests, samples, drilling time, and the formation density sidewall neutron logs. Major productive intervals are found in the Kaibab Formation and the Shinarump Sandstone Member of the Chinle Formation. Minor productive intervals are found in the White Rim Sandstone and the Sinbad Limestone Member of the Moenkopi Formation.

White Rim Sandstone

Considerable neutron density crossover is seen from 3570' - 3595', and from 3515' - 3529' in the White Rim Sandstone. The caliper curve reads consistently below 7 inches throughout the White Rim indicating a borehole very close to gauge (6 1/4"). This suggests that the crossover is due to gas effect rather than inaccurate readings due to blown out hole size.

Kaibab Formation

The Kaibab Formation was characterized by very rapid drilling. Samples of the Kaibab showed it to consist mainly as hard dolomite and chert, therefore the rapid drilling was probably due to great porosity. The porosity logs support this interpretation. From 3366' - 3474' density porosity averages 20% with a matrix density of 2.65 g/cc. As with the White Rim Sandstone, the caliper curve indicates an approximately gauge hole so the neutron density crossover seen in the lower two-thirds of the Kaibab is probably due to gas effect.

DISCUSSION (cont'd)

Sinbad Limestone Member of the Moenkopi Formation

Neutron density crossover is seen in the upper one-fourth of the Sinbad. This section was chafacterized by fast drilling probably due to high porosity. Fractures are most likely the source of this high porosity as suggested by a "hot" gamma ray reading. Uranium in the fractures would cause such a reading. Gas flowing out from this section may have caused the minor blowing out of the hole seen from 3185' - 3222'. The blowing out of the hole here is probably not great enough to substantially effect the accuracy of the porosity readings.

Shinarump Sandstone Member of the Chinle Formation

Flow tests show the Shinarump Sandstone to be a major CO2 producer in the Charger #4. Gas flowing out from the Shinarump can probably be credited with blowing the hole 50% out of gauge. A hole this far out of gauge puts the accuracy of the porosity readings in question. The great amount of neutron density crossover seen is probably due in part to gas effect and in part to inaccurate readings.

H2S

Hydrogen sulfide gas was first smelled during drilling of the Sinbad Limestone. The odor strengthened as the Kaibab was drilled and drilling was suspended at 3720' (in the White Rim Sandstone) due to concern for the safety of the personnel at the location. At no time did H2S sensors trigger an alarm. The maximum recorded concentration was 400 ppm at the end of the bluie line when the well flowed only gas during a connection (no additional air from compressors).

Mid-Continent Oil Co.
Charger #4

WELL DATA

OPERATOR:	Mid-Continent Oil and Gas Reserves
WELL NAME:	Charger #4
LOCATION:	501' fnl 2078' fwl NE NW SEC 13 T33S R2E Garfield County, Utah
ELEVATIONS:	8391' GL 8401' KB
FIELD:	Escalante Anticline
ROAD DIRECTIONS:	From Escalante, UT, N and E 22.1 miles on Hell's Backbone Rd. (USFS 153), SE 2.4 miles on lease road to wellsite.
SURFACE CASING:	Ran 3 joints 13 3/8" 48# K55 casing, set at 120' KB with 4 yards cement.
INTERMEDIATE CASING:	Ran 38 joints 9 5/8" 36# casing, set at 1460' KB. Ran 57 joints 7" 23# K55 casing, set at 2326' KB.
SPUD DATE:	1 October 1984 1:00 AM
DRILLING COMPLETED:	1 November 1984 5:00 PM
TOTAL DEPTH:	3720' Driller 3722' Logger
LAST FORMATION PENETRATED:	White Rim Sandstone
WELL STATUS:	Production casing to be run for completion attempt.
OPERATOR REPRESENTATIVE:	John Slawter

Mid-Continent Oil Company
Charger #4

FORMATION TOPS

Formation	Log Top	(8401' KB) Datum	Sample Top
JURRASSIC			
Navajo Sandstone	-----	8391' GL	Surface
TRIASSIC			
Kayenta Formation & Wingate Sandstone Undivided	-----	+7175'	1226'
Chinle Formation	1746'	+6655'	1791'
Shinarump Sandstone Member Of Chinle Formation	2282'	+6119'	2311'
Moenkopi Formation	2467'	+5934'	2473'
Sinbad (Timpoweap) Limestone Member of Moenkopi Formation	3185'	+5212'	3176'
Base Sinbad Limestone	3282'	+5116'	3205'
Kaibab Limestone	3301'	+5100'	3287'
White Rim Sandstone	3500'	+4901'	3464'
TD	3722'	+4679'	3720'

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY

The following descriptions are interpretive and are tied to the wireline logs. Sample quality was poor. Samples were collected as follows:

Depth	Interval
140' - 1980'	30'
1980' - 2260'	20'
2260' - 2300'	10'
2300' - 2330'	5'
2330' - 2490'	30'
2490' - 3010'	20'
3010' - 3170'	30'
3170' - 3340'	10'
3340' - 3680'	30'

Grain size was determined by use of the American Stratigraphic Company standard. Rock colors were compared to the Rock-Color Chart distributed by the Geological Society of America. All cut tests for hydrocarbons were performed with acetone unless noted otherwise. Effervescence refers to the reaction of drill cuttings in 10% HCl.

The sample study begins in the Triassic / Jurassic (?) Navajo Sandstone.

NAVAJO SANDSTONE

Surface - 1226' Unconsolidated sand, pinkish gray to white; lower very fine grained to lower coarse grained (predominately fine grained; coarse and medium grains probably represent aeolian lag); subrounded to well rounded; non-effervescent. No show. Hand samples from surface are clean, moderately to well sorted, and display fair to good visual porosity.

KAYENTA AND WINGATE FORMATIONS (undifferentiated)

TOP: 1226' DATUM: +7175'

1226' - 1280' Sandstone, mostly unconsolidated in samples; pale reddish brown; lower very fine grained to upper fine grained; subrounded to rounded; moderately sorted; hard; non-effervescent; trace gypsum or anhydrite cement; minor clay fill; trace dark mineral peppering concentrated along thin planes in some chips; poor to fair visual porosity. Trace pale green claystone. No show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

1280' - 1310' — Sandstone, mostly unconsolidated in samples; yellowish gray to moderate orange pink; lower very fine grained to lower medium grained; subrounded to well rounded; moderately to poorly sorted; hard; non-effervescent; trace gypsum or anhydrite cement; trace clay fill; poor visual porosity. Sandstone, moderate orange pink; lower very fine grained to upper fine grained; subrounded to rounded; moderately sorted; hard; very slightly effervescent; trace gypsum or anhydrite cement; trace dark mineral peppering; fair visual porosity. No show.

1310' - 1380' — Sandstone, mostly unconsolidated in samples; moderate reddish brown; lower very fine to upper fine grained; subrounded to rounded; moderately sorted; hard; slightly effervescent; trace gypsum or anhydrite cement; poor visual porosity. Sandstone, bluish white; lower very fine to upper fine grained; subrounded to rounded; moderately sorted; hard; non-effervescent; trace gypsum or anhydrite cement; trace green minerals; poor visual porosity. Shale, dark reddish brown; slightly silty; firm; reaction with HCl swells and disintegrates chips while forming very few small bubbles; rounded blocky. No show.

1380' - 1440' — Unconsolidated sand grains; light brown to grayish orange pink; lower very fine to upper fine grained; subrounded to rounded; non-effervescent. No show.

1440' - 1500' — Sandstone, moderate reddish brown; upper very fine to lower medium grained; subrounded to well rounded; moderately to poorly sorted; hard; slightly effervescent; trace gypsum or anhydrite cement; trace dark mineral peppering; trace clay fill; poor to fair visual porosity. Sandstone, yellowish gray; lower very fine to upper fine grained; subrounded to rounded; moderately sorted; hard; slightly effervescent; trace gypsum or anhydrite cement; fair to good visual porosity. Sandstone, grayish red; lower very fine to upper fine grained; subrounded to rounded; moderately sorted; hard; very slightly to non-effervescent; trace gypsum or anhydrite cement; trace clay fill; very minor mica; fair visual porosity. Sandstone, pale red; lower very fine to lower medium grained; subangular to rounded; well to moderately

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

sorted; hard; moderately effervescent; fused appearance; poor visual porosity. Sandstone, dark yellowish orange due to abundant yellow clay fill that obscures grain sizes and shapes; non-effervescent; no visual porosity. Trace shale, moderate reddish brown; slightly silty; slightly micaceous; soft; reaction with HCl slowly swells and flakes chips. Trace chert, pale brown; blocky. Trace pyrite. No show.

1500' - 1530' Unconsolidated sand grains; pale reddish brown; lower very fine to upper fine grained; subrounded to well rounded; non-effervescent. No show.

1530' - 1590' Sandstone, pale reddish brown; lower very fine to upper fine grained; subrounded to rounded; moderately sorted; hard; very slightly to non-effervescent; trace clay fill; trace gypsum / anhydrite cement; trace dark mineral peppering; poor visual porosity. Trace claystone, pale green; very soft. Trace siltstone, pale red; sandy; hard; very slightly effervescent; blocky. No show.

1590' - 1680' No samples--extremely fast drilling indicates poorly cemented or non-cemented "blow" sands.

1680' - 1746' Sandstone, pale reddish brown; upper very fine to upper fine grained; subrounded to rounded; moderately to well sorted; firm to friable; very slightly to non-effervescent; trace gypsum / anhydrite cement; trace dark mineral peppering; poor to fair visual porosity. No show.

CHINLE FORMATION TOP: 1746' DATUM: +6655'

Note: Sample quality was very poor throughout most of the Chinle. Cavings contaminating samples may be included in descriptions when their origin could not be determined.

1746' - 1790' 100% unconsolidated sand cavings. Gamma ray log used to pick formation top. No show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

1790' - 1830' Siltstone, pale reddish brown; sandy; hard; very slightly to slightly effervescent; platy to blocky. Shale, grayish red to pale reddish brown, greenish gray, light olive gray, and mottled red and green hues; silty to sandy; soft to firm; very slightly to slightly effervescent; subplaty to blocky. Greenish chips are generally finer grained. No show.

1830' - 1860' Siltstone, pale reddish brown to pale red; firm to hard; very slightly effervescent; subblocky. Siltstone, moderate yellowish brown; soft to firm; very slightly calcareous; subblocky. Siltstone, light greenish gray; sandy; firm; very slightly effervescent; subplaty. Trace dolomite, pinkish gray to pale red; microcrystalline to cryptocrystalline; hard; blocky. No show.

1860' - 1890' Siltstone, moderate yellowish brown to moderate brown; soft to firm; very slightly effervescent; blocky to subblocky. No show.

1890' - 1920' Siltstone, moderate yellowish brown to moderate brown; soft to firm; very slightly effervescent; blocky to subblocky. Trace dolomite, white, pale red and light olive gray to greenish gray (red and green from minor clay impurities); finely crystalline to microcrystalline; hard; blocky. Trace siltstone, light greenish gray; hard; very slightly effervescent; blocky. Trace shale, black; hard; slightly effervescent; blocky. No show.

1920' - 1950' Siltstone and silty shale, moderate yellowish brown to pale red and mottled in between; soft to firm; very slightly to slightly effervescent; subplaty to blocky. Trace sandstone, light gray to pinkish gray; upper very fine to lower medium grained; subangular to subrounded; moderately to well sorted; hard to friable; trace gypsum / anhydrite (?) cement; moderately effervescent, reaction with HCl destroys chip and leaves sand residue; dark mineral peppering; poor visual porosity. Trace dolomite, light gray; microcrystalline; hard; blocky. Trace sandstone, pale red; lower very fine to upper fine grained; subrounded to subangular; moderately sorted;

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

	hard to friable; slightly to moderately effervescent; trace gypsum / anhydrite (?) cement; poor visual porosity. Siltstone, light greenish gray; hard; slightly effervescent; blocky. No show.
1950' - 1982'	Varicolored siltstones, as above (1920' - 1950'). Also sandstone, white to moderate orange pink; upper very fine to upper fine grained; moderately sorted; hard to friable; highly effervescent; trace glauconite; trace dark mineral peppering; trace mica; trace gypsum / anhydrite (?) cement; poor visual porosity. No show.
1982' - 2000'	Claystone, moderate yellowish brown to pale red; sandy; soft to firm; reaction with HCl destroys chip and leaves flaky clay and sand residue (red chips react quicker); blocky to rounded chips. Sandstone, white to moderate orange pink; upper very fine to upper fine grained; subangular to subrounded; moderately to well sorted; friable; moderately effervescent; trace gypsum / anhydrite cement; poor visual porosity. Trace shale, light greenish gray; silty; firm; moderately effervescent; rounded chips. Shale, pale reddish brown; sandy; friable; moderately to slightly effervescent (reaction with HCl breaks chips into flakes); rounded to blocky. No show.
2000' - 2060'	Mostly unconsolidated sand, pale reddish brown (probable Wingate cavings). HCl on loose sand bubbles vigorously. Shale and silty claystone, pale red to grayish red and pale reddish brown; soft to firm; moderately effervescent; rounded blocky to some splintery. Trace limestone, white; finely crystalline; blocky. No show.
2060' - 2080'	Mostly unconsolidated sand, as above (2000' - 2060'). Siltstone, grayish orange pink; sandy; hard; moderately effervescent; rounded blocky. Trace shale, light greenish gray; silty; firm; slightly effervescent; rounded blocky. No show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

2080' - 2100' Mostly unconsolidated sand, as above (2000' - 2060'). Trace sandstone, clear; quartz overgrowths give fused appearance obscuring grain shapes and sizes; hard; broken grains; trace black fill between some grains; no visual porosity. This fused sand may be cavings from pea gravel or sand put in the hole with cement above. Shale, pale red to light greenish gray; silty; hard; slightly effervescent, reaction with HCl swells and flakes chips; blocky. Trace sandstone, pale red; lower very fine to lower fine grained; moderately sorted; subrounded; hard; moderately effervescent; poor visual porosity. No show.

2100' - 2120' Siltstone and shale, pale red, moderate reddish brown, light greenish gray; soft; slightly to moderately effervescent; subblocky to rounded; Trace limestone, white; cryptocrystalline; soft; clean; rounded. No show.

2120' - 2140' Mostly unconsolidated sand, as above (2000' - 2060'). Shale, grayish red; silty; firm; very slightly effervescent; blocky and rounded chips. Claystone, moderate yellowish brown; sandy; soft; slightly to moderately effervescent; subblocky to rounded chips. Trace dolomite, moderate reddish brown; microcrystalline; hard; subplaty. No show.

2140' - 2200' Mostly unconsolidated sand, as above (2000' - 2060'). Claystone and shale, pale red to light greenish gray and mottled in between; soft; slightly to moderately effervescent; rounded chips. Trace sandstone, moderate reddish orange; lower very fine to lower fine grained; subangular to subrounded; moderately to well sorted; friable; very slightly effervescent; trace clay fill; fair visual porosity. Trace limestone, white; cryptocrystalline; firm; clean; rounded chips. No show.

2200' - 2220' As above (2140' - 2200'), with shale, pale reddish brown; sandy; hard; slightly calcareous; blocky. No show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

2220' - 2240' As above (2140' - 2200), with slight impurities in the limestone. No show.

2240' - 2270' Mostly unconsolidated sand as above (2000' - 2060'), with reduced effervescence. Shale and claystone, as above (2140' - 2200'). Also trace dolomite, light greenish gray; finely crystalline; friable; dissolves slowly in HCl to leave light green clay residue; blocky. Trace sandstone, clear, fused quartz. No show.

2270' - 2282' Mostly unconsolidated sand, as above (2000' - 2060'). Siltstone, light greenish gray; soft to firm; very slightly effervescent; subblocky to blocky. Trace shale, pale red; smooth; firm; very slightly effervescent; subblocky. Trace shale, grayish red; smooth; firm; reaction with HCl parts chips and forms very few bubbles; subplaty. Trace siltstone, grayish red; slightly effervescent; hard; blocky. No show.

SHINARUMP MEMBER OF THE CHINLE FORMATION
TOP: 2282' DATUM: +6119'

2282' - 2290' 100% cavings of unconsolidated sand and grayish red siltstone,. Top picked from gamma ray log. No definitive Shinarump cuttings until 2311'. No show.

2290' - 2300' Unconsolidated sand as above (2000' - 2060'), but with trace mica flakes. No show.

2300' - 2305' Mostly unconsolidated sand as above (2000' - 2060'). Trace sandstone, very light gray; upper very fine to lower fine grained; subangular to subrounded; well sorted; friable; very slightly to non-effervescent; abundant white clay fill; very minor dark mineral peppering; very minor glauconite; poor visual porosity. No show.

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

2305' - 2311'	As above (2300' - 2305), but with increase in loose, clear sand grains and virtually no reaction to HCl. No show.
2311' - 2330'	Sandstone, lower to upper very fine grained; subangular to subrounded; well sorted; hard to friable; very slightly to non-calcareous; abundant white clay fill; trace dark mineral peppering; rare glauconite; poor visual porosity due to clay fill. No show.
2330' - 2360'	Predominately rubber from float and cement. Trace metal shavings. Trace loose clear sand grains. No show.
2360' - 2467'	Unconsolidated sand, white to very light gray; lower very fine to upper coarse grained; subangular to subrounded; some grains appear freshly broken; very slightly effervescent (probably due to cement dust); trace dark mineral grains; trace free pyrite. No show.

MOENKOPI FORMATION TOP: 2467' DATUM: +5934'

2467' - 2490'	Shale, grayish red; smooth to slightly silty; firm; slightly effervescent; some chips micaceous; rounded to blocky. Trace siltstone, light gray to pinkish gray; hard to friable; very slightly effervescent; trace dark mineral peppering; trace mica; rounded chips. Possible Shinarump cavings. No show.
2490' - 2590'	As above (2467' - 2490'), with siltstone, grayish red to moderate brown; firm to hard; very slightly effervescent; trace dark mineral peppering; trace mica; rounded to blocky. No show.
2590' - 2610'	Predominately shale and siltstone, as above (2467' - 2590'). Trace dolomite, pale red; cryptocrystalline to microcrystalline; hard; blocky. Trace siltstone, light gray; very fine to fine grain-sized mica flakes; hard to friable; very slightly effervescent; blocky. No show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

2610' - 2650'	Shale, grayish red; smooth to slightly silty; firm; slightly effervescent; some mica chips; rounded to blocky. Siltstone, grayish red to moderate brown; firm to hard; very slightly effervescent; micaceous; trace dark mineral peppering; rounded to blocky. Trace siltstone, light gray to pinkish gray to light greenish gray; hard to friable; very slightly effervescent; trace dark mineral peppering; trace mica; rounded chips. No show.
2650' - 2675'	As above (2610' - 2650'). Also marlstone, moderate reddish brown; dissolves in HCl leaving orange brown clay residue; clods. No show.
2675' - 2710'	Shale, grayish red; smooth to slightly silty; firm; slightly effervescent; some chips micaceous; rounded to blocky. Siltstone, grayish red to moderate brown; firm to hard; very slightly effervescent; micaceous; trace dark mineral peppering; rounded to blocky. Trace siltstone, light gray to pinkish gray to light greenish gray; hard to friable; very slightly effervescent; trace dark mineral peppering; trace mica; rounded chips. No show.
2710' - 2770'	As above (2675' - 2710'), with trace chert. No show.
2770' - 2830'	Shale, grayish red; smooth to slightly silty; firm; slightly effervescent; some micaceous chips; rounded to blocky. Siltstone, grayish red to moderate brown; firm to hard; very slightly effervescent; micaceous; trace dark mineral peppering; rounded to blocky. Unconsolidated sand, clear; lower very fine to upper coarse grained (predominately fine and medium grained); subangular to subrounded; non-effervescent. Percentage of unconsolidated grains in sample increases downhole.
Show:	No hydrocarbon fluorescence. Trace show towards base of unit. Cuts in acetone were slow, non-streaming, and dried to a faint discontinuous pale yellow halo. Overall trace show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

2830' - 2850' — Unconsolidated sand, as above (2770' - 2830'). Many grains appear freshly broken. Trace chert. Trace pyrite. Trace dark mineral grains. Trace claystone, light greenish gray; soft; swells and parts in HCl; rounded chips.

Show: — No hydrocarbon fluorescence. Trace cuts were slow, non-streaming, and dried to a faint discontinuous pale yellow halo. Overall trace show.

2850' - 2870' — Shale, grayish red; smooth to slightly silty; firm; slightly effervescent; some chips micaceous; rounded to blocky. Siltstone, grayish red to moderate brown; firm to hard; very slightly calcareous; micaceous; trace dark mineral peppering; rounded to blocky. Unconsolidated sand, clear. Trace claystone, light greenish gray; soft; rounded chips. Trace pyrite. Trace sandstone, pale reddish brown; lower to upper fine grained; subangular to subrounded; well sorted; hard; very slightly effervescent; trace dark mineral peppering; clay filled; poor visual porosity. No show.

2870' - 2890' — Shale and siltstone, as above (2850' - 2870'). Trace sandstone, pinkish gray; lower medium to lower coarse grained; subrounded; moderately sorted; hard; slightly effervescent; clay filled; trace dark mineral peppering; poor visual porosity. Trace limestone, light gray; microcrystalline; hard; blocky. Trace marlstone, moderate to dark reddish brown; soft; dissolves in HCl leaving orange brown residue of clay and mica. No show.

2890' - 2950' — Shale and siltstone, as above (2850' - 2870'). Unconsolidated sand, clear; lower very fine to lower coarse grained; freshly broken; angular to rounded; non-effervescent. No show.

2950' - 2980' — Unconsolidated sand, clear with patchy gray coating; lower fine to upper coarse grained; subangular to rounded; coating is effervescent (probably cement dust associated with abundant cement cavings in this sample); broken grains common. No show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

2980' - 2990'	Very small cuttings of siltstone, grayish red, shale, grayish red, and loose grains of clear and reddish sand. No show.
2990' - 3010'	Unconsolidated sand, clear to moderate orangish brown; predominately lower very fine to upper fine grained, some medium grains; subangular to rounded; few grains appear freshly broken; non-effervescent. Trace very small cuttings of limestone or dolomite, white. No show.
3010' - 3070'	Unconsolidated sand, clear to moderate reddish orange; upper very fine to lower coarse grained; mean grain size increases downhole; subangular to rounded; many freshly broken clear grains; non-effervescent. Shale, grayish red; slightly silty; soft to moderately firm; very slightly effervescent; micromicaceous; rounded chips. Siltstone, light greenish gray; soft; very slightly to non-effervescent; rounded to subplaty. No show.
3070' - 3108'	Shale, grayish red; slightly silty; soft to moderately firm; very slightly effervescent, possibly dolomitic; micromicaceous; rounded to subplaty. Trace unconsolidated sand. No show.
3108' - 3140'	Claystone, white to light greenish gray; soft; non-effervescent; very small rounded cuttings. Abundant free pyrite. Unconsolidated sand, clear; lower very fine to upper coarse grained, grain size increases downhole; subangular to rounded. No show.
Note:	No sample was caught between 3115' - 3130'.
3140' - 3170'	Unconsolidated sand, clear to orangish clear; mostly lower very fine grained to lower coarse grained, some lower very coarse grains; subangular to subrounded. Sandstone, pinkish gray; lower very fine to upper medium grained; subangular to subrounded; moderately sorted; friable; non-effervescent; very minor white clay fill; excellent visual porosity. Sandstone, grayish orange pink; lower very fine to lower fine grained; moderately sorted;

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

subangular; friable; very slightly effervescent; trace white clay fill; good visual porosity. Trace loose dark mineral grains. Trace free pyrite. No show.

3170' - 3185' Unconsolidated sand, clear; lower very fine to lower very coarse grained (predominately fine to coarse grained); subangular to rounded. Trace pyrite. Trace dark mineral grains.

Show: No hydrocarbon fluorescence. Cuts in acetone were very weak, non-streaming bluish white and dried to very weak pale yellow halos. Minimum show overall.

SINBAD LIMESTONE MEMBER OF THE MOENKOPI FORMATION
TOP: 3185' DATUM: +5212'

3185' - 3230' Limestone, white. Extremely small cuttings.

Show: Dull bluish yellow fluorescence. Cuts in acetone were slow to moderately fast, non-streaming milky blue and dried to pale bluish yellow halos. Trace show overall.

3230' - 3238' Limestone, as above (3185' - 3230'). Trace chert, dark reddish brown; hard; blocky.

Show: Trace show in limestone as above (3185' - 3230').

3238' - 3282' Limestone, white; cryptocrystalline; hard; clean; blocky. Trace chert, pale reddish brown to grayish red; hard; blocky. Trace pyrite. Trace dolomite, pale redish brown; firm to hard; blocky. No show.

BASE SINBAD LIMESTONE BASE: 3282' DATUM: +5116'

3282' - 3301' Siltstone and shale, grayish red; moderately firm to hard; very slightly to non-effervescent; rounded blocky to blocky. Unconsolidated sand, clear; upper fine to lower

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

coarse grained; subrounded to well rounded; non-effervescent. Trace shale near base of unit; light greenish gray; firm; very slightly effervescent; pyritic; rounded cuttings. No show.

KAIBAB FORMATION TOP: 3301' DATUM: +5100'

3301' - 3370' Chert, white; hard; blocky. Dolomite, white; firm to hard; blocky. Trace pyrite. No show.

3370' - 3464' Chert and dolomite, as above (3301' - 3370'), with light green streaks on some chips. Trace pyrite. Unconsolidated sand, clear, increasing downhole. Trace very small white limestone cuttings at base of unit. No show.

3464' - 3500' Unconsolidated sand, clear; lower very fine to lower coarse grained (predominately lower very fine to upper fine grained); subangular to rounded. Dolomite, white; hard; blocky; probable cavings. No show.

WHITE RIM SANDSTONE TOP: 3500' DATUM: +4901'

3500' - 3610' Unconsolidated sand, clear; predominately lower very fine to upper fine grained, some to upper middle grained; freshly broken angular; subrounded to well rounded. No show.

3610' - 3680' Unconsolidated sand, as above (3500' - 3610'). Trace limestone, probable cavings. No show.

3680' - 3722' TD No samples.

Form OGC-3

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

56 64 01

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: U-53744

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: Charger

9. WELL NO.: #4 Charger

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 13, T 33S, R2E

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other CO_2

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: Mid-Continent Oil & Gas Reserves Inc.

3. ADDRESS OF OPERATOR: 12700 Park Central #1404, Dallas, Texas, 75251

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: NE NW Section 13,T33S, R2E;501'FNL,2078'FWL
At top prod. interval reported below:
At total depth:

RECEIVED
OCT 03 1985
DIVISION OF OIL GAS & MINING

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
43-017-30122	9-12-84	Garfeild	Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
10-1-84	11-2-84	See No. 31	8291'GL 8301'KB	8401'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
		N/A	→	Yes	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
Kaibab 3366' - 3474' Sinbad-Moenkopi 3185' - 3230'
Shinarump - Chinle 2830' - 2850'

25. WAS DIRECTIONAL SURVEY MADE: yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Sidewall Neutron, Formation Density

27. WAS WELL CORED: NO

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	48.0	120' KB	17½"	4 yds.	N/A
9 5/8"	36.0	1460' KB	12¼"	500 sacks plus 6 yds	N/A
7 "	23.0	2326' KB	7 7/8"	completed open hole with a sequence of meta	
4 ½"	10.5	3726' KB	6 3/4"	baskets set at non-producing intervals & Cemented	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
n/a	n/a	n/a	n/a	n/a

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
n/a	n/a	n/a

31. PERFORATION RECORD (*Interval, size and number*)
This well will not be perforated until production contracts for the use of CO2 have been negotiated.It's anticipated that these CO2 sales contracts will be completed when one trillion cubic feet of CO2 gas reserves, to sothern California Basin is underway

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
(a continuation of #31)	
the subject area has been proven to no less than Engineering for pipeline system from subject	

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
See item #31	N/A	N/A Operation Suspended

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
See Flow Test Sheet Attached							

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
N/A			N/A	59.52 MMCFPD		45.1° @ 60°

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)
Will be used for EOR purposes when a pipeline is completed

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS
Flow Sheet, Geology Report, Sidewall Neutron Formation Density Log

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED S. B. Sparks TITLE Corporate Secretary DATE 9/30/85

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: "*Sacks Cement*": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			Wellsite geologist report attached which includes, but is not limited to all of the information requested in Item #37 and Item #38

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

FIELD DATA SHEET

Type Test: ☑ Initial ☐ Annual ☐ Special — Test Date: 6/21/86 — Lease No. or Serial No.:

Company: Mid-Continent Oil Co. — Connection: None — Allottee:

Field: Wildcat — Reservoir: Shinarump, Timpoweap, Kaibab, White Rim — Location — Unit:

Completion Date: 6/21/86 — Total Depth: 3721 — Plug Back TD: 3721 — Elevation: 8391' GL — Farm or Lease Name: Charger

Csg. Size: 4½ — Wt.: 11.6 — d — Set At: 3721 — Perforations: From 2330 To 3700 — Well No.: 4

Tbg. Size: None — Wt. — d — Set At — Perforations: From — To — Sec.: 13 — Twp-Blk: 33S — Rge-Surv: 2E

Type Completion (Describe): Comingled Gas (CO_2) — Packer Set At: None — County or Parish: Garfield

Producing Thru — Reservoir Temp. F @ — Mean Annual Temp. F — Baro. Press. – P_a — State: Ut

L — H — G_g — % CO_2 — % N_2 — % H_2S — Prover: 2" — Meter Run — Taps

DATE Time of Reading	ELAP. TIME Min.	WELLHEAD WORKING PRESSURE Tbg. Psig	Csg. Psig	Temp. F	METER OR (PROVER) 2" Pressure Psig	Diff.	Temp. F	Orifice	REMARKS (Include liquid production data: Type – API Gravity – Amount)
13:15			99						Deadweight Shut-in Pressure
" "	—		—					1.5"	Open to flow - Rate #1
13:30	15		58		58		55°	"	
13:45	30		58		58		55°	"	Final - Rate #1 2,369 mcf/d
" "	—		—		—		—	—	Shut-in
13:50	5		99						
" "	—		—					1.375"	Open to flow - Rate #2
14:05	15		65		65		56°	"	
14:20	30		65		65		56°	"	Final - Rate #2 2,102 mcf/
" "	—		—		—		—	—	Shut-in
14:25	5		99						
" "	—		—					1.250	Open to flow - Rate #3
14:40	15		71		71		57°	"	
14:55	30		71		71		57°	"	Final - Rate #3 1,844 mcf/
" "	—		—		—		—	—	Shut-in
15:00	5		99						
" "	—		—					1.125"	Open to flow - Rate #4
15:15	15		77		77		59°	"	
15:30	30							"	Final - Rate #4 1,564 mcf/
" "	—		—		—		—	—	Shut-in
15:35	5		99						
16:00	30		99						

PAGE 1 OF ___ DATA BY [redacted] Tesseller, Inc.

Form BPT 1

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
MIDLAND, TEXAS

WELL : CHARGER NO. 4 PAGE 4 OF 6

FIELD : WILDCAT FILE 4-17698-OFP

CHRONOLOGICAL PRESSURE AND PRODUCTION DATA

1986 DATE	STATUS OF WELL	TIME	ELAPSED TIME HRS.	MIN.	WELLHEAD PRESSURE TBG	CSG
6-21	Checked shut-in pressure with the deadweight tester	13:15				99
	Open to flow (1st rate)	13:15	0	00		
		13:30	0	15	58	
		13:45	0	30	58	
	Shut-in well	13:45	0	00		
		13:50	0	05		99
	Open to flow (2nd rate)	13:50	0	00		
		14:05	0	15	65	
		14:20	0	30	65	
	Shut-in well	14:20	0	00		
		14:25	0	05		99
	Open to flow (3rd rate)	14:25	0	00		
		14;40	0	15	71	
		14:55	0	30	71	
	Shut-in well	14:55	0	00		
		15:00	0	05		99
	Opoen to flow (4th rate)	15:00	0	00		
		15:15	0	15	77	
		15:30	0	30	77	
	Shut-in well	15:30	0	00		
		15:35	0	05		99
		16:00	0	30		99

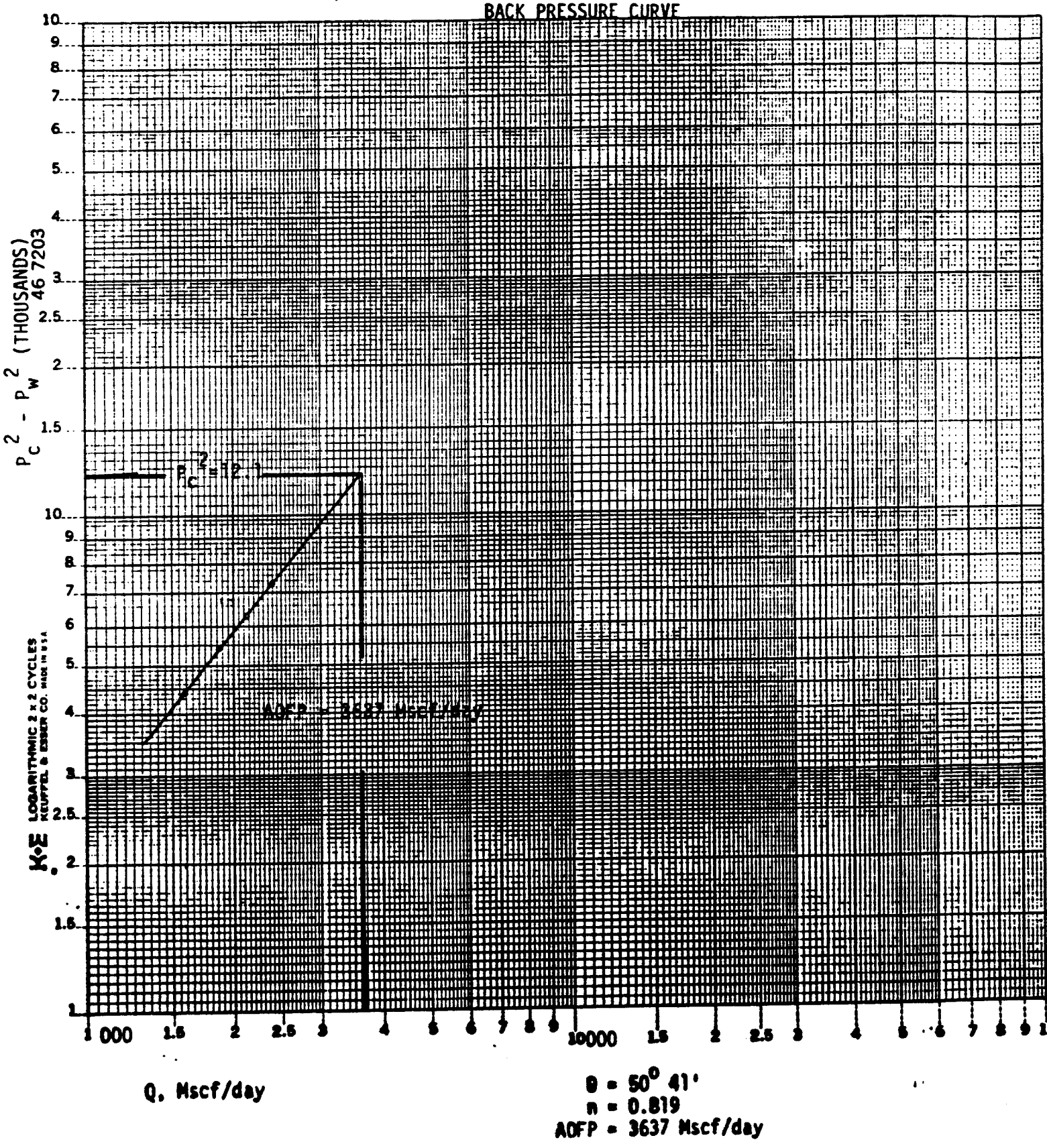
TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

WELL: MID-CONTINENT OIL COMPANY - CHARGER NO. 4
FIELD: WILDCAT

GAS PRODUCTION DATA

Date of Test	June 21, 1986			
Rate No.	1/2	1/2	1/2	1/2
Stabilization Period (Hours)	1/2	1/2	1/2	1/2
Flow Time Used for Calculations (Hours)	2	2	2	2
Size Line (Inch)	1 1/2	1 3/8	1 1/4	1 1/8
Size Orifice (Inch)	55	56	57	59
Flowing Temperature (^{o}F)	1.5195	1.5195	1.5195	1.5195
Gas Gravity (CO_2 assum.)	60	60	60	60
Temperature Base (^{o}F)	15.025	15.025	15.025	15.025
Pressure Base (Psia)	1.0000	1.0000	1.0000	1.0000
Gravity Base	42.11	33.95	27.63	21.89
Coefficient (MCF/D)	69 (58)	76 (65)	82 (71)	88 (77)
Static Pressure (P_m) (+ 11 psia)	1.015	1.015	1.015	1.015
Supercompressibility Factor (F_{pv})	1.0048	1.0039	1.0029	1.0010
Flowing Temperature Factor (F_{tf})	.8112	.8112	.8112	.8112
Specific Gravity Factor (F_{tf})	1.0000	1.0000	1.0000	1.0000
Pressure Base Conversion Factor (F_{pb})	2404	2133	1871	1588
GAS VOLUME (MCF/D)	110	110	110	110
P_c	69	76	82	88
P_w	12.1	12.1	12.1	12.1
P_c^2 (THOUSANDS)	4.8	5.8	6.7	7.7
P_w^2 (THOUSANDS)	7.3	6.3	5.4	4.4
$P_c^2 - P_w^2$ (THOUSANDS)				

Company : Mid-Continent Oil Company
Well : Charger No. 4
Field : Wildcat
County : Garfield
State : Utah
Test Date : June 21, 1986



TIGHT HOLE

MID-CONTINENT OIL COMPANY

CHARGER #4

NE NW SEC 13 T33S R2E

GARFIELD COUNTY, UTAH

WELLSITE GEOLOGIST'S REPORT

DISCUSSION

WELL DATA

FORMATION TOPS

SUMMARY OF SHOWS AND LITHOLOGY

FLOW TESTS

SERVICES

DAILY OPERATIONS

MUD RECORD

BIT RECORD

DEVIATIONS

DRILLING CURVE

COMPOSITE SAMPLE LOG

DRILLING TIME LOG

RECEIVED

OCT 03 1985

DIVISION OF OIL
GAS & MINING

T. M. McCOY & CO., INC.
CONSULTING GEOLOGISTS

1190 NEPTUNE DRIVE, LAFAYETTE, COLORADO 80026 303/443-6861

Mid-Continent Oil Co.
Charger #4

DISCUSSION

The decision to run production casing for a completion attempt in the carbon dioxide zones in the Mid-Continent Charger #4 was based on flow tests, samples, drilling time, and the formation density sidewall neutron logs. Major productive intervals are found in the Kaibab Formation and the Shinarump Sandstone Member of the Chinle Formation. Minor productive intervals are found in the White Rim Sandstone and the Sinbad Limestone Member of the Moenkopi Formation.

White Rim Sandstone

Considerable neutron density crossover is seen from 3570' - 3595', and from 3515' - 3529' in the White Rim Sandstone. The caliper curve reads consistently below 7 inches throughout the White Rim indicating a borehole very close to gauge (6 1/4"). This suggests that the crossover is due to gas effect rather than inaccurate readings due to blown out hole size.

Kaibab Formation

The Kaibab Formation was characterized by very rapid drilling. Samples of the Kaibab showed it to consist mainly as hard dolomite and chert, therefore the rapid drilling was probably due to great porosity. The porosity logs support this interpretation. From 3366' - 3474' density porosity averages 20% with a matrix density of 2.65 g/cc. As with the White Rim Sandstone, the caliper curve indicates an approximately gauge hole so the neutron density crossover seen in the lower two-thirds of the Kaibab is probably due to gas effect.

DISCUSSION (cont'd)

Sinbad Limestone Member of the Moenkopi Formation

Neutron density crossover is seen in the upper one-fourth of the Sinbad. This section was characterized by fast drilling probably due to high porosity. Fractures are most likely the source of this high porosity as suggested by a "hot" gamma ray reading. Uranium in the fractures would cause such a reading. Gas flowing out from this section may have caused the minor blowing out of the hole seen from 3185' - 3222'. The blowing out of the hole here is probably not great enough to substantially effect the accuracy of the porosity readings.

Shinarump Sandstone Member of the Chinle Formation

Flow tests show the Shinarump Sandstone to be a major CO2 producer in the Charger #4. Gas flowing out from the Shinarump can probably be credited with blowing the hole 50% out of gauge. A hole this far out of gauge puts the accuracy of the porosity readings in question. The great amount of neutron density crossover seen is probably due in part to gas effect and in part to inaccurate readings.

H2S

Hydrogen sulfide gas was first smelled during drilling of the Sinbad Limestone. The odor strengthened as the Kaibab was drilled and drilling was suspended at 3720' (in the White Rim Sandstone) due to concern for the safety of the personnel at the location. At no time did H2S sensors trigger an alarm. The maximum recorded concentration was 400 ppm at the end of the bluie line when the well flowed only gas during a connection (no additional air from compressors).

Mid-Continent Oil Co.
Charger #4

DISCUSSION (cont'd)

A measurement taken during the final flow test after drilling was suspended showed 200 ppm. No measurable amount was ever detected in the cellar or on the rig floor even during connections. The fact that alarms set to go off at 10 ppm were never activated shows that the H2S was rapidly dispersed. Records from other wells in Escalante Anticline mention H2S as well and it should be anticipated in the future at Escalante Anticline.

Remarks

At TD, calculated open flow potential was in excess of 59 million cubic feet per day for a six inch opening. This figure, and the figures from Mid-Continents Chargers #1 and #2, show Escalante Anticline to be one of the largest CO2 reservoirs in the United States.

John Sherman
Consulting Geologist

Mid-Continent Oil Co.
Charger #4

WELL DATA

OPERATOR:	Mid-Continent Oil and Gas Reserves
WELL NAME:	Charger #4
LOCATION:	501' fnl 2078' fwl NE NW SEC 13 T33S R2E Garfield County, Utah
ELEVATIONS:	8391' GL 8401' KB
FIELD:	Escalante Anticline
ROAD DIRECTIONS:	From Escalante, UT, N and E 22.1 miles on Hell's Backbone Rd. (USFS 153), SE 2.4 miles on lease road to wellsite.
SURFACE CASING:	Ran 3 joints 13 3/8" 48# K55 casing, set at 120' KB with 4 yards cement.
INTERMEDIATE CASING:	Ran 38 joints 9 5/8" 36# casing, set at 1460' KB. Ran 57 joints 7" 23# K55 casing, set at 2326' KB.
SPUD DATE:	1 October 1984 1:00 AM
DRILLING COMPLETED:	1 November 1984 5:00 PM
TOTAL DEPTH:	3720' Driller 3722' Logger
LAST FORMATION PENETRATED:	White Rim Sandstone
WELL STATUS:	Production casing to be run for completion attempt.
OPERATOR REPRESENTATIVE:	John Slawter

Mid-Continent Oil Company
Charger #4

FORMATION TOPS

Formation	Log Top	(8401' KB) Datum	Sample Top
JURRASSIC			
Navajo Sandstone	-----	8391' GL	Surface
TRIASSIC			
Kayenta Formation & Wingate Sandstone Undivided	-----	+7175'	1226'
Chinle Formation	1746'	+6655'	1791'
Shinarump Sandstone Member Of Chinle Formation	2282'	+6119'	2311'
Moenkopi Formation	2467'	+5934'	2473'
Sinbad (Timpoweap) Limestone Member of Moenkopi Formation	3185'	+5212'	3176'
Base Sinbad Limestone	3282'	+5116'	3205'
Kaibab Limestone	3301'	+5100'	3287'
White Rim Sandstone	3500'	+4901'	3464'
TD	3722'	+4679'	3720'

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY

The following descriptions are interpretive and are tied to the wireline logs. Sample quality was poor. Samples were collected as follows:

Depth	Interval
140' - 1980'	30'
1980' - 2260'	20'
2260' - 2300'	10'
2300' - 2330'	5'
2330' - 2490'	30'
2490' - 3010'	20'
3010' - 3170'	30'
3170' - 3340'	10'
3340' - 3680'	30'

Grain size was determined by use of the American Stratigraphic Company standard. Rock colors were compared to the Rock-Color Chart distributed by the Geological Society of America. All cut tests for hydrocarbons were performed with acetone unless noted otherwise. Effervescence refers to the reaction of drill cuttings in 10% HCl.

The sample study begins in the Triassic / Jurassic (?) Navajo Sandstone.

NAVAJO SANDSTONE

Surface - 1226' Unconsolidated sand, pinkish gray to white; lower very fine grained to lower coarse grained (predominately fine grained; coarse and medium grains probably represent aeolian lag); subrounded to well rounded; non-effervescent. No show. Hand samples from surface are clean, moderately to well sorted, and display fair to good visual porosity.

KAYENTA AND WINGATE FORMATIONS (undifferentiated)

TOP: 1226' DATUM: +7175'

1226' - 1280' Sandstone, mostly unconsolidated in samples; pale reddish brown; lower very fine grained to upper fine grained; subrounded to rounded; moderately sorted; hard; non-effervescent; trace gypsum or anhydrite cement; minor clay fill; trace dark mineral peppering concentrated along thin planes in some chips; poor to fair visual porosity. Trace pale green claystone. No show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

1280' - 1310' Sandstone, mostly unconsolidated in samples; yellowish gray to moderate orange pink; lower very fine grained to lower medium grained; subrounded to well rounded; moderately to poorly sorted; hard; non-effervescent; trace gypsum or anhydrite cement; trace clay fill; poor visual porosity. Sandstone, moderate orange pink; lower very fine grained to upper fine grained; subrounded to rounded; moderately sorted; hard; very slightly effervescent; trace gypsum or anhydrite cement; trace dark mineral peppering; fair visual porosity. No show.

1310' - 1380' Sandstone, mostly unconsolidated in samples; moderate reddish brown; lower very fine to upper fine grained; subrounded to rounded; moderately sorted; hard; slightly effervescent; trace gypsum or anhydrite cement; poor visual porosity. Sandstone, bluish white; lower very fine to upper fine grained; subrounded to rounded; moderately sorted; hard; non-effervescent; trace gypsum or anhydrite cement; trace green minerals; poor visual porosity. Shale, dark reddish brown; slightly silty; firm; reaction with HCl swells and disintegrates chips while forming very few small bubbles; rounded blocky. No show.

1380' - 1440' Unconsolidated sand grains; light brown to grayish orange pink; lower very fine to upper fine grained; subrounded to rounded; non-effervescent. No show.

1440' - 1500' Sandstone, moderate reddish brown; upper very fine to lower medium grained; subrounded to well rounded; moderately to poorly sorted; hard; slightly effervescent; trace gypsum or anhydrite cement; trace dark mineral peppering; trace clay fill; poor to fair visual porosity. Sandstone, yellowish gray; lower very fine to upper fine grained; subrounded to rounded; moderately sorted; hard; slightly effervescent; trace gypsum or anhydrite cement; fair to good visual porosity. Sandstone, grayish red; lower very fine to upper fine grained; subrounded to rounded; moderately sorted; hard; very slightly to non-effervescent; trace gypsum or anhydrite cement; trace clay fill; very minor mica; fair visual porosity. Sandstone, pale red; lower very fine to lower medium grained; subangular to rounded; well to moderately

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

sorted; hard; moderately effervescent; fused appearance; poor visual porosity. Sandstone, dark yellowish orange due to abundant yellow clay fill that obscures grain sizes and shapes; non-effervescent; no visual porosity. Trace shale, moderate reddish brown; slightly silty; slightly micaceous; soft; reaction with HCl slowly swells and flakes chips. Trace chert, pale brown; blocky. Trace pyrite. No show.

1500' - 1530' Unconsolidated sand grains; pale reddish brown; lower very fine to upper fine grained; subrounded to well rounded; non-effervescent. No show.

1530' - 1590' Sandstone, pale reddish brown; lower very fine to upper fine grained; subrounded to rounded; moderately sorted; hard; very slightly to non-effervescent; trace clay fill; trace gypsum / anhydrite cement; trace dark mineral peppering; poor visual porosity. Trace claystone, pale green; very soft. Trace siltstone, pale red; sandy; hard; very slightly effervescent; blocky. No show.

1590' - 1680' No samples--extremely fast drilling indicates poorly cemented or non-cemented "blow" sands.

1680' - 1746' Sandstone, pale reddish brown; upper very fine to upper fine grained; subrounded to rounded; moderately to well sorted; firm to friable; very slightly to non-effervescent; trace gypsum / anhydrite cement; trace dark mineral peppering; poor to fair visual porosity. No show.

CHINLE FORMATION TOP: 1746' DATUM: +6655'

Note: Sample quality was very poor throughout most of the Chinle. Cavings contaminating samples may be included in descriptions when their origin could not be determined.

1746' - 1790' 100% unconsolidated sand cavings. Gamma ray log used to pick formation top. No show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

1790' - 1830' Siltstone, pale reddish brown; sandy; hard; very slightly to slightly effervescent; platy to blocky. Shale, grayish red to pale reddish brown, greenish gray, light olive gray, and mottled red and green hues; silty to sandy; soft to firm; very slightly to slightly effervescent; subplaty to blocky. Greenish chips are generally finer grained. No show.

1830' - 1860' Siltstone, pale reddish brown to pale red; firm to hard; very slightly effervescent; subblocky. Siltstone, moderate yellowish brown; soft to firm; very slightly calcareous; subblocky. Siltstone, light greenish gray; sandy; firm; very slightly effervescent; subplaty. Trace dolomite, pinkish gray to pale red; microcrystalline to cryptocrystalline; hard; blocky. No show.

1860' - 1890' Siltstone, moderate yellowish brown to moderate brown; soft to firm; very slightly effervescent; blocky to subblocky. No show.

1890' - 1920' Siltstone, moderate yellowish brown to moderate brown; soft to firm; very slightly effervescent; blocky to subblocky. Trace dolomite, white, pale red and light olive gray to greenish gray (red and green from minor clay impurities); finely crystalline to microcrystalline; hard; blocky. Trace siltstone, light greenish gray; hard; very slightly effervescent; blocky. Trace shale, black; hard; slightly effervescent; blocky. No show.

1920' - 1950' Siltstone and silty shale, moderate yellowish brown to pale red and mottled in between; soft to firm; very slightly to slightly effervescent; subplaty to blocky. Trace sandstone, light gray to pinkish gray; upper very fine to lower medium grained; subangular to subrounded; moderately to well sorted; hard to friable; trace gypsum / anhydrite (?) cement; moderately effervescent, reaction with HCl destroys chip and leaves sand residue; dark mineral peppering; poor visual porosity. Trace dolomite, light gray; microcrystalline; hard; blocky. Trace sandstone, pale red; lower very fine to upper fine grained; subrounded to subangular; moderately sorted;

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

	hard to friable; slightly to moderately effervescent; trace gypsum / anhydrite (?) cement; poor visual porosity. Siltstone, light greenish gray; hard; slightly effervescent; blocky. No show.
1950' - 1982'	Varicolored siltstones, as above (1920' - 1950'). Also sandstone, white to moderate orange pink; upper very fine to upper fine grained; moderately sorted; hard to friable; highly effervescent; trace glauconite; trace dark mineral peppering; trace mica; trace gypsum / anhydrite (?) cement; poor visual porosity. No show.
1982' - 2000'	Claystone, moderate yellowish brown to pale red; sandy; soft to firm; reaction with HCl destroys chip and leaves flaky clay and sand residue (red chips react quicker); blocky to rounded chips. Sandstone, white to moderate orange pink; upper very fine to upper fine grained; subangular to subrounded; moderately to well sorted; friable; moderately effervescent; trace gypsum / anhydrite cement; poor visual porosity. Trace shale, light greenish gray; silty; firm; moderately effervescent; rounded chips. Shale, pale reddish brown; sandy; friable; moderately to slightly effervescent (reaction with HCl breaks chips into flakes); rounded to blocky. No show.
2000' - 2060'	Mostly unconsolidated sand, pale reddish brown (probable Wingate cavings). HCl on loose sand bubbles vigorously. Shale and silty claystone, pale red to grayish red and pale reddish brown; soft to firm; moderately effervescent; rounded blocky to some splintery. Trace limestone, white; finely crystalline; blocky. No show.
2060' - 2080'	Mostly unconsolidated sand, as above (2000' - 2060'). Siltstone, grayish orange pink; sandy; hard; moderately effervescent; rounded blocky. Trace shale, light greenish gray; silty; firm; slightly effervescent; rounded blocky. No show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

2080' - 2100' Mostly unconsolidated sand, as above (2000' - 2060'). Trace sandstone, clear; quartz overgrowths give fused appearance obscuring grain shapes and sizes; hard; broken grains; trace black fill between some grains; no visual porosity. This fused sand may be cavings from pea gravel or sand put in the hole with cement above. Shale, pale red to light greenish gray; silty; hard; slightly effervescent, reaction with HCl swells and flakes chips; blocky. Trace sandstone, pale red; lower very fine to lower fine grained; moderately sorted; subrounded; hard; moderately effervescent; poor visual porosity. No show.

2100' - 2120' Siltstone and shale, pale red, moderate reddish brown, light greenish gray; soft; slightly to moderately effervescent; subblocky to rounded; Trace limestone, white; cryptocrystalline; soft; clean; rounded. No show.

2120' - 2140' Mostly unconsolidated sand, as above (2000' - 2060'). Shale, grayish red; silty; firm; very slightly effervescent; blocky and rounded chips. Claystone, moderate yellowish brown; sandy; soft; slightly to moderately effervescent; subblocky to rounded chips. Trace dolomite, moderate reddish brown; microcrystalline; hard; subplaty. No show.

2140' - 2200' Mostly unconsolidated sand, as above (2000' - 2060'). Claystone and shale, pale red to light greenish gray and mottled in between; soft; slightly to moderately effervescent; rounded chips. Trace sandstone, moderate reddish orange; lower very fine to lower fine grained; subangular to subrounded; moderately to well sorted; friable; very slightly effervescent; trace clay fill; fair visual porosity. Trace limestone, white; cryptocrystalline; firm; clean; rounded chips. No show.

2200' - 2220' As above (2140' - 2200'), with shale, pale reddish brown; sandy; hard; slightly calcareous; blocky. No show.

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

2220' - 2240' As above (2140' - 2200), with slight impurities in the limestone. No show.

2240' - 2270' Mostly unconsolidated sand as above (2000' - 2060'), with reduced effervescence. Shale and claystone, as above (2140' - 2200'). Also trace dolomite, light greenish gray; finely crystalline; friable; dissolves slowly in HCl to leave light green clay residue; blocky. Trace sandstone, clear, fused quartz. No show.

2270' - 2282' Mostly unconsolidated sand, as above (2000' - 2060'). Siltstone, light greenish gray; soft to firm; very slightly effervescent; subblocky to blocky. Trace shale, pale red; smooth; firm; very slightly effervescent; subblocky. Trace shale, grayish red; smooth; firm; reaction with HCl parts chips and forms very few bubbles; subplaty. Trace siltstone, grayish red; slightly effervescent; hard; blocky. No show.

SHINARUMP MEMBER OF THE CHINLE FORMATION
TOP: 2282' DATUM: +6119'

2282' - 2290' 100% cavings of unconsolidated sand and grayish red siltstone,. Top picked from gamma ray log. No definitive Shinarump cuttings until 2311'. No show.

2290' - 2300' Unconsolidated sand as above (2000' - 2060'), but with trace mica flakes. No show.

2300' - 2305' Mostly unconsolidated sand as above (2000' - 2060'). Trace sandstone, very light gray; upper very fine to lower fine grained; subangular to subrounded; well sorted; friable; very slightly to non-effervescent; abundant white clay fill; very minor dark mineral peppering; very minor glauconite; poor visual porosity. No show.

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

2305' - 2311' — As above (2300' - 2305), but with increase in loose, clear sand grains and virtually no reaction to HCl. No show.

2311' - 2330' — Sandstone, lower to upper very fine grained; subangular to subrounded; well sorted; hard to friable; very slightly to non-calcareous; abundant white clay fill; trace dark mineral peppering; rare glauconite; poor visual porosity due to clay fill. No show.

2330' - 2360' — Predominately rubber from float and cement. Trace metal shavings. Trace loose clear sand grains. No show.

2360' - 2467' — Unconsolidated sand, white to very light gray; lower very fine to upper coarse grained; subangular to subrounded; some grains appear freshly broken; very slightly effervescent (probably due to cement dust); trace dark mineral grains; trace free pyrite. No show.

MOENKOPI FORMATION — TOP: 2467' DATUM: +5934'

2467' - 2490' — Shale, grayish red; smooth to slightly silty; firm; slightly effervescent; some chips micaceous; rounded to blocky. Trace siltstone, light gray to pinkish gray; hard to friable; very slightly effervescent; trace dark mineral peppering; trace mica; rounded chips. Possible Shinarump cavings. No show.

2490' - 2590' — As above (2467' - 2490'), with siltstone, grayish red to moderate brown; firm to hard; very slightly effervescent; trace dark mineral peppering; trace mica; rounded to blocky. No show.

2590' - 2610' — Predominately shale and siltstone, as above (2467' - 2590'). Trace dolomite, pale red; cryptocrystalline to microcrystalline; hard; blocky. Trace siltstone, light gray; very fine to fine grain-sized mica flakes; hard to friable; very slightly effervescent; blocky. No show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

2610' - 2650' — Shale, grayish red; smooth to slightly silty; firm; slightly effervescent; some mica chips; rounded to blocky. Siltstone, grayish red to moderate brown; firm to hard; very slightly effervescent; micaceous; trace dark mineral peppering; rounded to blocky. Trace siltstone, light gray to pinkish gray to light greenish gray; hard to friable; very slightly effervescent; trace dark mineral peppering; trace mica; rounded chips. No show.

2650' - 2675' — As above (2610' - 2650'). Also marlstone, moderate reddish brown; dissolves in HCl leaving orange brown clay residue; clods. No show.

2675' - 2710' — Shale, grayish red; smooth to slightly silty; firm; slightly effervescent; some chips micaceous; rounded to blocky. Siltstone, grayish red to moderate brown; firm to hard; very slightly effervescent; micaceous; trace dark mineral peppering; rounded to blocky. Trace siltstone, light gray to pinkish gray to light greenish gray; hard to friable; very slightly effervescent; trace dark mineral peppering; trace mica; rounded chips. No show.

2710' - 2770' — As above (2675' - 2710'), with trace chert. No show.

2770' - 2830' — Shale, grayish red; smooth to slightly silty; firm; slightly effervescent; some micaceous chips; rounded to blocky. Siltstone, grayish red to moderate brown; firm to hard; very slightly effervescent; micaceous; trace dark mineral peppering; rounded to blocky. Unconsolidated sand, clear; lower very fine to upper coarse grained (predominately fine and medium grained); subangular to subrounded; non-effervescent. Percentage of unconsolidated grains in sample increases downhole.

Show: — No hydrocarbon fluorescence. Trace show towards base of unit. Cuts in acetone were slow, non-streaming, and dried to a faint discontinuous pale yellow halo. Overall trace show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

2830' - 2850' Unconsolidated sand, as above (2770' - 2830'). Many grains appear freshly broken. Trace chert. Trace pyrite. Trace dark mineral grains. Trace claystone, light greenish gray; soft; swells and parts in HCl; rounded chips.

Show: No hydrocarbon fluorescence. Trace cuts were slow, non-streaming, and dried to a faint discontinuous pale yellow halo. Overall trace show.

2850' - 2870' Shale, grayish red; smooth to slightly silty; firm; slightly effervescent; some chips micaceous; rounded to blocky. Siltstone, grayish red to moderate brown; firm to hard; very slightly calcareous; micaceous; trace dark mineral peppering; rounded to blocky. Unconsolidated sand, clear. Trace claystone, light greenish gray; soft; rounded chips. Trace pyrite. Trace sandstone, pale reddish brown; lower to upper fine grained; subangular to subrounded; well sorted; hard; very slightly effervescent; trace dark mineral peppering; clay filled; poor visual porosity. No show.

2870' - 2890' Shale and siltstone, as above (2850' - 2870'). Trace sandstone, pinkish gray; lower medium to lower coarse grained; subrounded; moderately sorted; hard; slightly effervescent; clay filled; trace dark mineral peppering; poor visual porosity. Trace limestone, light gray; microcrystalline; hard; blocky. Trace marlstone, moderate to dark reddish brown; soft; dissolves in HCl leaving orange brown residue of clay and mica. No show.

2890' - 2950' Shale and siltstone, as above (2850' - 2870'). Unconsolidated sand, clear; lower very fine to lower coarse grained; freshly broken; angular to rounded; non-effervescent. No show.

2950' - 2980' Unconsolidated sand, clear with patchy gray coating; lower fine to upper coarse grained; subangular to rounded; coating is effervescent (probably cement dust associated with abundant cement cavings in this sample); broken grains common. No show.

Mid-Continent Oil Company
Charger #4

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

2980' - 2990' — Very small cuttings of siltstone, grayish red, shale, grayish red, and loose grains of clear and reddish sand. No show.

2990' - 3010' — Unconsolidated sand, clear to moderate orangish brown; predominately lower very fine to upper fine grained, some medium grains; subangular to rounded; few grains appear freshly broken; non-effervescent. Trace very small cuttings of limestone or dolomite, white. No show.

3010' - 3070' — Unconsolidated sand, clear to moderate reddish orange; upper very fine to lower coarse grained; mean grain size increases downhole; subangular to rounded; many freshly broken clear grains; non-effervescent. Shale, grayish red; slightly silty; soft to moderately firm; very slightly effervescent; micromicaceous; rounded chips. Siltstone, light greenish gray; soft; very slightly to non-effervescent; rounded to subplaty. No show.

3070' - 3108' — Shale, grayish red; slightly silty; soft to moderately firm; very slightly effervescent, possibly dolomitic; micromicaceous; rounded to subplaty. Trace unconsolidated sand. No show.

3108' - 3140' — Claystone, white to light greenish gray; soft; non-effervescent; very small rounded cuttings. Abundant free pyrite. Unconsolidated sand, clear; lower very fine to upper coarse grained, grain size increases downhole; subangular to rounded. No show.

Note: — No sample was caught between 3115' - 3130'.

3140' - 3170' — Unconsolidated sand, clear to orangish clear; mostly lower very fine grained to lower coarse grained, some lower very coarse grains; subangular to subrounded. Sandstone, pinkish gray; lower very fine to upper medium grained; subangular to subrounded; moderately sorted; friable; non-effervescent; very minor white clay fill; excellent visual porosity. Sandstone, grayish orange pink; lower very fine to lower fine grained; moderately sorted;

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

subangular; friable; very slightly effervescent; trace white clay fill; good visual porosity. Trace loose dark mineral grains. Trace free pyrite. No show.

3170' - 3185' Unconsolidated sand, clear; lower very fine to lower very coarse grained (predominately fine to coarse grained); subangular to rounded. Trace pyrite. Trace dark mineral grains.

Show: No hydrocarbon fluorescence. Cuts in acetone were very weak, non-streaming bluish white and dried to very weak pale yellow halos. Minimum show overall.

SINBAD LIMESTONE MEMBER OF THE MOENKOPI FORMATION
TOP: 3185' DATUM: +5212'

3185' - 3230' Limestone, white. Extremely small cuttings.

Show: Dull bluish yellow fluorescence. Cuts in acetone were slow to moderately fast, non-streaming milky blue and dried to pale bluish yellow halos. Trace show overall.

3230' - 3238' Limestone, as above (3185' - 3230'). Trace chert, dark reddish brown; hard; blocky.

Show: Trace show in limestone as above (3185' - 3230').

3238' - 3282' Limestone, white; cryptocrystalline; hard; clean; blocky. Trace chert, pale reddish brown to grayish red; hard; blocky. Trace pyrite. Trace dolomite, pale redish brown; firm to hard; blocky. No show.

BASE SINBAD LIMESTONE BASE: 3282' DATUM: +5116'

3282' - 3301' Siltstone and shale, grayish red; moderately firm to hard; very slightly to non-effervescent; rounded blocky to blocky. Unconsolidated sand, clear; upper fine to lower

SUMMARY OF SHOWS AND LITHOLOGY (cont'd)

coarse grained; subrounded to well rounded; non-effervescent. Trace shale near base of unit; light greenish gray; firm; very slightly effervescent; pyritic; rounded cuttings. No show.

KAIBAB FORMATION TOP: 3301' DATUM: +5100'

3301' - 3370' Chert, white; hard; blocky. Dolomite, white; firm to hard; blocky. Trace pyrite. No show.

3370' - 3464' Chert and dolomite, as above (3301' - 3370'), with light green streaks on some chips. Trace pyrite. Unconsolidated sand, clear, increasing downhole. Trace very small white limestone cuttings at base of unit. No show.

3464' - 3500' Unconsolidated sand, clear; lower very fine to lower coarse grained (predominately lower very fine to upper fine grained); subangular to rounded. Dolomite, white; hard; blocky; probable cavings. No show.

WHITE RIM SANDSTONE TOP: 3500' DATUM: +4901'

3500' - 3610' Unconsolidated sand, clear; predominately lower very fine to upper fine grained, some to upper middle grained; freshly broken angular; subrounded to well rounded. No show.

3610' - 3680' Unconsolidated sand, as above (3500' - 3610'). Trace limestone, probable cavings. No show.

3680' - 3722' TD No samples.

Mid-Continent Oil Company
Charger #4

Flow Tests

#	Date	Depth	Test
1	10-31	3005'	3/4" Choke. Initial shut in pressure: 25 psi. Flow pressure: 25 psi. 20 minute flow time Rate through choke: 461 MCFPD. Calculated open flow potential: 29.504 MMCFPD.
2	10-31	3098'	3/4" Choke. Initial shut in pressure: NA. Flow pressure: 27 psi. Approx. 20 minute flow time. Rate through choke: 487 MCFPD. Calculated open flow potential: 31.168 MMCFPD.
3	11-1	3285'	3/4" Choke. Initial shut in pressure: 40 psi. Flow pressure: 37 psi. 15 minute flow time. Rate through choke: 605 MCFPD. Calculated open flow potential: 38.720 MMCFPD.
4	11-2	3720'	3/4" Choke. Shut in pressure after well shut in 10 hours: 74 psi. Flow pressure: 65 psi. Flow time: NA. Rate through choke: 930 MCFPD. Calculated open flow potential: 59.520 MMCFPD.

Mid-Continent Oil Company
Charger #4

SERVICES

CONTRACTOR:	Calvert Western Rig #5 Toolpushers: Howard Leach, Terry Leach	Moab, UT
DRILLING ENGINEER:	Bill Crismon	Denver, CO
MUD:	None	
MUD LOGGING:	None	
AUTOMATED SAMPLING:	None	
WELLSITE GEOLOGY:	T. M. McCoy & Co., Inc. Geologist: John Sherman	Lafayette, CO
CORES:	None	
DRILL STEM TESTS:	None	
LOGS:	Schlumberger Engineer: Chet Badowski	Farmington, NM

Mid-Continent Oil Company
Charger #4

DAILY OPERATIONS

The following summary of drilling operations was prepared from the rig tour sheets. Depths are at start of morning tour (11:00 p.m.). Hours are shown in parentheses.

Day	Date	Depth	Operation
1	10-1	0'	Rig up (1). Drill (23).
2	10-2	59'	Drill (10 1/2). Survey, trip out, lay down subs (1). Run casing (2 1/2). Cement (1). Wait on cement, rig up bluie line (4). Cut off, nipple up (2). Trip in (2 1/2). Drill (1/2).
3	10-3	200'	Drill (4 1/2). Survey (1/2). Drill (3). Survey (1/2). Drill (1/2). Tie in 15w air service compressor and rig--clean hole (2). Drill (1). Work pipe, clean hole, rig up mist pump (2 1/2). Drill (1). Survey (1/2). Wait on water (1). Drill (5). Survey (1/2). Drill (1 1/2).
4	10-4	627'	Drill (7 3/4). Survey (1/4). Drill (4 1/2). Survey (1/2). Drill (6). Survey (1/2). Drill (4). Survey (1/2).
5	10-5	1094'	Service rig (1/2). Drill, survey, drill (13 1/2). Service rig (1/2). Survey (1/2). Drill (1). Trip (4 1/2). Ream to bottom, unload hole (1/2). Drill (3).
6	10-6	1431'	Drill (12). Rig up compressors and weld bushings, dry up hole (7). Drill (1/2). Work pipe to get returns (2 3/4). Work stuck pipe (1 3/4).
7	10-7	1557'	Work stuck pipe (1 1/2). Pump down 500 gal diesel (2 1/2). Work stuck pipe (20).
8	10-8	1557'	Pump down 20 bbl stiff foam (3 1/2). Work stuck pipe (1 1/2). Work pipe out of hole, circulate and condition hole (5 3/4). Trip out (1 1/4). Dump mud and LCM hole and drive down LCM bridging--pick up 2 stands of DC and kelly 3 times and drive through bridge at base of 13 3/8"--lay down DC (6 1/4). Trip in with 12 1/4" bit--hit bridge at 1114' (3 3/4). Clean hole, lay down 4 joints pipe, run 2 stands (total 15 joints) (2).

Mid-Continent Oil Company
Charger #4

DAILY OPERATIONS (cont'd)

Day	Date	Depth	Operation
9	10-9	1557'	Ream and blow hole one joint to 1247' (2). Trip out and lay down 1 joint (1). Wait on cement and LCM (8). Rig up to cement (1/2). Cement 7 yards with bulk sawdust (1/2). Wait on cement (8 1/2). Trip in, tag bridge at 930', lay down 1 joint (1). Blow hole, wash and drill cement (2 1/2).
10	10-10	1557'	Ream and blow hole 1029' - 1060' (2). Pull 3 stands, change out rotating head and mix mud, wait on cement, fill to 1030' (9). Trip in 2 stands, ream down 1 joint to 1091', wash and ream to 1153'. Formation broke down. Try to aerate mud--lost returns between 1153' - 1123' (3). Trip in, lay down 2 joints (1). Pump LCM and gel with 100 sacks sawdust, wait on cement (2). Trip in, wash and ream to 1060' (7).
11	10-11	1557'	Blow hole (1). Trip out, stand back DC (1). Trip in with DP at 1178' (1). Rig up and mix cement (4). Pump 35 sacks cement (1/2). Wait on cement (3 3/4). Tag cement and fill (1/4). Mix cement (1). Cement with 30 sacks, chase with water, pull 124' drill pipe (1/4). Wait on cement, tag cement and fill (3 1/4). Mix cement (1 3/4). Cement with 35 sacks, chase with water, pull 124' drill pipe (1/4). Wait on cement (4). Blow hole, trip in (1). Wait on cement (1).
12	10-12	1557'	Wait on cement (1). Cement (1). Wait on cement, break 12 1/2" bit and sub off, 6 1/2" DC make up on 8 1/2" DC (6). Trip in with DC (1/2). Wait on cement (5 1/2). Trip in, tag at 962' (3/4). Drill cement (7 3/4). Trip out (1/2). Wait on orders (1).
13	10-13	1557'	Wait on water pump for air compressor (12). Work on rig (11). Trip in with DP for cement (1).
14	10-14	1557'	Wait on cementers (10 1/2). Trip out (1). Wait on cementers (12 1/2).
15	10-15	1557'	Wait on cementers (4). Trip in (1/2). Wait on cementers (5 1/2). Wash and ream to 1350', lost air (1 1/2). Rig up cement and cement at 1360' with 100 sacks, wait on cement (2). Tag at 1360', no fill, cement with 50 sacks, wait on cement (1 1/2). Tag at 1345', 15' fill, cement with 50 sacks, wait on cement (4). Tag at 1210, 95' fill, cement, wait on cement (5).

Mid-Continent Oil Company
Charger #4

DAILY OPERATIONS (cont'd)

Day	Date	Depth	Operation
16	10-16	1557'	Wait on cement (2 1/2). Tag at 1110', trip out, trip in with DC and DP, lay down 10 joints (4 1/2). Ream cement to 1123' (5). Drill cement (12).
17	10-17	1557'	Drill cement to 1520', fill 1520' - 1557' (9 1/4). Drill (2 1/4). Trip in 4 stands, lay down 2 joints (1/2). Trip in 6 stands (1/4). Work on mist pump (11 3/4).
18	10-18	1617'	Rig up mist tank (3 1/2). Trip in, hit bridge at 1050', circulate to get mist (1/2). Circulate and work pipe (3). Trip in (1/2). Blow hole, no returns (1 1/2). Trip in 7 stands to 990', tight 6 stands (1/2). Blow hole, no returns (2). Trip out (1/2). Blow hole, no returns (1). Pull out 2 stands (1/4). Blow hole (1 1/4). Make connection, blow hole 816' to 968', lay down 4 joints, run 2 stands, blow hole (3). Trip out, lay down 8" DC (4). Wait on casing crew (2).
19	10-19	1617'	Wait on casing crew (3). Rig up and run casing (3 1/2). Wait on cementers (8 1/2). Rig up cementers, cement, work casing, rig down cementers (4 1/2). Wait on ready-mix truck, nipple down (2). Run ready mix down back side of casing (1). Wait on cement (1 1/2).
20	10-20	1617'	Wait on cement (3). Run cement down backside (1). Pump cement down backside with cementers (5 1/2). Wait on cement (1). Cut off casing, nipple up rotating head (1). Trip in, pull up bottom hole DC (1/2). Make up bit, trip in to 900', get kelly, unload hole, trip in to 1173', unload hole (3). Pick up 5 singles, tag float at 1430' (1). Drill float, shoe joint had no fill in same, fill at 1465' - 1480', open hole to 1518', pea gravel fell in and had 10' of fill (6). Nipple down rotating head, dig collar (2).
21	10-21	1617'	Dig collar (5). Cut off casing weld on breaker head (7). Nipple up, test BOP, leak on bottom flange--retighten (12).
22	10-22	1617'	Rig shut down--no crew (12). Nipple up, test BOP, blanks 1500# pipe 1500# (4). Go in hole with 8 3/4" bit, tag cement at 1275' (3/4). Lay down 10 joints, run in 5 stands, drill cement (estimated cement behind casing 52') (7 1/4).

Mid-Continent Oil Company
Charger #4

DAILY OPERATIONS (cont'd)

Day	Date	Depth	Operation
23	10-23	1617'	Drill cement (4 1/2). Drill fill, clean out to 1617', drill 1617' - 1643'--no returns. Try to dry hole at 1643', hole tight. Pulled to casing, dry at casing at 1460' (7 1/2). Work pipe, blow hole dry, pick up 5 singles and ream back to bottom (6). Drill to 1673' (2). Work pipe, blow hole, wait on mud (1/2). Pull out 6 singles (1/2). Wait on mud (1). Mix mud (2).
24	10-24	1673'	Mix mud (3). Pump mud in hole, 150 bbl, unable to break circulation (1). Mix mud (3). Trip into fill at 1635', pump air and mud, got circulation (2). Build flow line for air drilling (5). Survey (1/4). Wash 70' to bottom (3/4). Drill (8 1/2). Survey (1/2).
25	10-25	1801'	Clean and air out pump (1). Drill (11 1/2). Survey (1/2). Drill (11).
26	10-26	2204'	Drill (8). Circulate samples at 2299' (1/2). Drill (1 1/2). Circulate samples at 2310' (1/2). Drill (1 1/2). Circulate, work pipe (2). Mix gel pill, work pipe (1 1/2). Trip out (tight), pump out, lay down 4 joints (1 1/2). Wait on casing, 14 stands out, mix mud (4 1/2). Trip out, lay down 1 single and DC (1 1/2). Rig up to run casing (1).
27	10-27	2330'	Run casing to 1460' (3). Build swedge, drop ball and shear automatic fillup (1). Run casing, bridges at 1520', 1545', 1620', 2050', 2170' (1). Pump on casing and work to 2325', wait on cement (7). Wait on cementers (12).
28	10-28	2330'	Wait on cementers (12). Rig up to cement (1). Cement with 150 sacks (1). Pick up stack, set slips, cut off casing, nipple up (11).
29	10-29	2330'	Nipple up BOP (4 1/2). Strap DC and caliper (1/2). Rebuild bluie line (7). Trip in, pick up drill collars (4). Tag cement at 2303', dry up hole and drill cement (2 3/4). Drill float, drill (3/4). Dry up hole (2). Drill and dusting (2 1/2).
30	10-30	2452'	Survey (1/4). Drill (8). Survey (1/2). Drill (6 1/4). Survey (1/2). Drill (8 1/2).

Mid-Continent Oil Company
Charger #4

DAILY OPERATIONS (cont'd)

Day	Date	Depth	Operation
31	10-31	2965'	Drill (3). Trip for bit, survey (5 1/2). Run flow test, change rotating head rubber (1 1/2). Drill (4). Flow test (1/2). Drill (8 1/2). Survey (1/2). Drill (1/2).
32	11-1	3190'	Drill (7 1/2). Replace water pump booster, run flow test (2 1/4). Drill (11 1/4). Replace rotating head rubber (1 1/2). Clean hole (1/2). Trip out (1).
33	11-2	3720'	Trip out (2). Close blind rams, shut in well (15). Rig up loggers and log (7).
34	11-3	3720'	Rig up to run casing.

Mid-Continent Oil Company
Charger #4

MUD RECORD

Drilled with air/mist to 1673'; then aerated mud to 2330'; then air/dust to TD. Hole was logged without difficulty.

Day	Date	Depth	Weight
24	10-24	1673'	8.6
25	10-25	1801'	8.6
26	10-26	2204'	8.6

Mid-Continent Oil Company
Charger #4

BIT RECORD

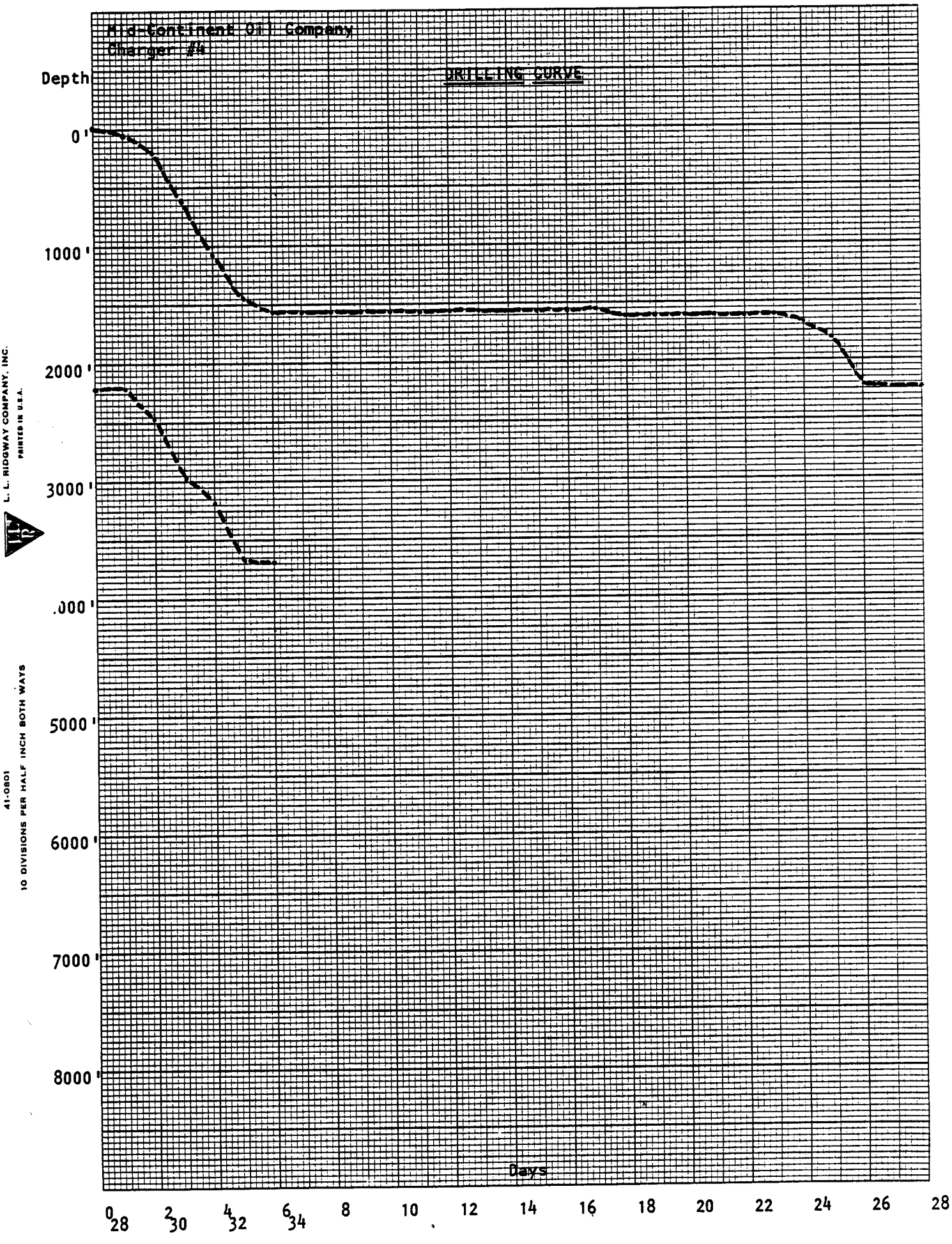
Bit #	Size	Make	Type	Depth Out	Footage	Hours
1	17 1/2	Reed	YTH	122	122	33.0
2	12 1/4	HTC	J33	1375	1253	62.75
3	12 1/4	HTC	J44	1557	182	15.5
4	12 1/4	HTC	J33	1617	60	31.75
5	8 3/4	Smith	F3	2330	713	42.0
6	6 1/4	Smith	F4	3005	675	13.75
7	6 1/4	Smith	F4	3720	715	33.25

Bit #	Ft/Hr	Weight	RPM	Pump Press.
1	4	8-10 K	50-70	100
2	20	8-10 K	50-70	200
3	12	8-10 K	50-70	210
4	2	8-10 K	50-70	---
5	17	8-10 K	70	300
6	49	8-10 K	90-100	125
7	22	8-10 K	90-100	125

Mid-Continent Oil Company
Charger #4

DEVIATIONS

Depth	Degree
120'	0---
200'	0---
322'	1/2
415'	1/2
507'	1/2
730'	3/4
823'	1---
940'	3/4
1061'	1---
1240'	3/4
1342'	3/4
1632'	1---
1801'	1---
1945'	1 1/2
2422'	1 3/4
2634'	2 1/4
2800'	1 3/4
3000'	2 1/4
3120'	2 1/4


Mid-Continent Oil Company
Charger #4
DRILLING CURVE
Depth
0'
1000'
2000'
3000'
.000'
5000'
6000'
7000'
8000'
Days
0 28
2 30
4 32
6 34
8
10
12
14
16
18
20
22
24
26
28
L. L. RIDGWAY COMPANY, INC.
PRINTED IN U.S.A.
41-0801
10 DIVISIONS PER HALF INCH BOTH WAYS

Mid-Continent Oil Co.
Charger #4

DISCUSSION (cont'd)

A measurement taken during the final flow test after drilling was suspended showed 200 ppm. No measurable amount was ever detected in the cellar or on the rig floor even during connections. The fact that alarms set to go off at 10 ppm were never activated shows that the H_2S was rapidly dispersed. Records from other wells in Escalante Anticline mention H_2S as well and it should be anticipated in the future at Escalante Anticline.

Remarks

At TD, calculated open flow potential was in excess of 59 million cubic feet per day for a six inch opening. This figure, and the figures from Mid-Continents Chargers #1 and #2, show Escalante Anticline to be one of the largest CO_2 reservoirs in the United States.

John Sherman
Consulting Geologist

Mid-Continent Oil Company
Charger #4

BIT RECORD

Bit #	Size	Make	Type	Depth Out	Footage	Hours
1	17 1/2	Reed	YTH	122	122	33.0
2	12 1/4	HTC	J33	1375	1253	62.75
3	12 1/4	HTC	J44	1557	182	15.5
4	12 1/4	HTC	J33	1617	60	31.75
5	8 3/4	Smith	F3	2330	713	42.0
6	6 1/4	Smith	F4	3005	675	13.75
7	6 1/4	Smith	F4	3720	715	33.25

Bit #	Ft/Hr	Weight	RPM	Pump Press.
1	4	8-10 K	50-70	100
2	20	8-10 K	50-70	200
3	12	8-10 K	50-70	210
4	2	8-10 K	50-70	---
5	17	8-10 K	70	300
6	49	8-10 K	90-100	125
7	22	8-10 K	90-100	125

Mid-Continent Oil Company
Charger #4

DEVIATIONS

Depth	Degree
120'	0---
200'	0---
322'	1/2
415'	1/2
507'	1/2
730'	3/4
823'	1---
940'	3/4
1061'	1---
1240'	3/4
1342'	3/4
1632'	1---
1801'	1---
1945'	1 1/2
2422'	1 3/4
2634'	2 1/4
2800'	1 3/4
3000'	2 1/4
3120'	2 1/4

MID-CONTINENT OIL

Executive Offices:
12700 Park Central Place, Suite 1404
Dallas, Texas 75251
214/233-3380 • 214/233-3381

October 22, 1985

Ms. Stephane Barela
Division of Oil, Gas, and Mining
3 Triad Center
Suite 350
Salt Lake City, Utah 84180-1203

Re: Confidentiality of Charger #4
Garfield County, Utah

Dear Ms. Barela:

In reference to your telephone call of October 16, 1985, I checked with Mr. John Slawter relative to the above captioned. Mr. Slawter said, "yes, it is very confidential at this time." He states that the reason for the #4 being confidential is the fact that it is in the immediate proximity of the bids that will be taking place relative to future CO2 leases in the immediate area. As leases are let, the confidentiality may be lifted at your discretion.

Thank you for your cooperation in this matter.

Very truly yours,

Michal Vanek

Michal Vanek
Unit Coordinator

MV/mv

cc: Mr. John D. Slawter
Mr. W. W. Hall

Form 9-331-C

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5. LEASE DESIGNATION AND SERIAL NO.: U-53744

SUNDRY NOTICES AND REPORTS

RECEIVED
JUN 16 1986
DIVISION OF OIL, GAS & MINING

*Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

1. OIL WELL ☐ GAS WELL ☒ OTHER

7. UNIT AGREEMENT NAME: N/A

2. NAME OF OPERATOR: Mid-Continent Oil & Gas Reserves, Inc

8. FARM OR LEASE NAME: Charger

3. ADDRESS OF OPERATOR: 12700 Park Central Place #1404, Dallas, Texas 75251

9. WELL NO.: #4 Charger

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: NE NW Section 13, T33S-R2E: 501' FNL, 2078' FWL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 13, T33S-R2E

14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.)	12. COUNTY OR PARISH	13. STATE
43-017-30122	8,291.0 GR	Garfield	Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) status report			
(Other)				(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

The Charger #4 is in a completed status, with the exception of the following:

1. Setting the 5½" stainless steel christmas tree, including dual gate valves, butterfly valves, etc.
2. The wellhead, spool, gate valves and other allied fittings are on abck order from First National Pipe, Grand Junction, CO. Delivery date is projected to be during the month of June, 1985.
3. The 4½" production string will be perforated when subject christmas tree and allied equipment has been installed.
4. This well will not be produced until production contracts for the use of CO2 have been negotiated. It is anticipated that these CO2 sales contracts will be completed when subject area (i.e. Escalante structure) has been proven to no less than one trillion cubic feet of CO2 gas reserves.

18. I hereby certify that the foregoing is true and correct

SIGNED S.B. Sparks TITLE Corporate Secretary DATE 1/15/86

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGC-1b

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5. LEASE DESIGNATION AND SERIAL NO.: U-53744

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Charger

9. WELL NO.: #4 Charger

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 13, T33S, R2E

12. COUNTY OR PARISH: Garfield

13. STATE: Utah

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER CO2

2. NAME OF OPERATOR: Mid-Continent Oil & Gas Reserves, Inc.

3. ADDRESS OF OPERATOR: 12700 Park Central #1404, Dallas, Texas 75251

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface:
T33S, R2E, Sec. 13 NE NW
501' FNL, 2078' FWL

14. PERMIT NO.: 43-017-30122

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 8,291.0 GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			
XX (Other) Perforate for production				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Begin June 21 through June 23, 1986

1st Interval	-	Shinarump	2330' - 2460'	- 28 holes
2nd Interval	-	Timpoweap	3190' - 3208'	- 6 holes
3rd Interval	-	Kaibab	3302' - 3498'	- 30 holes
4th Interval	-	Toroweap-White Rim	3505' - 3700'	- 16 holes

RECEIVED
JUN 16 1986
DIVISION OF
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED John D. Stanton TITLE President DATE June 10, 1986

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGC-1b

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: U-53744

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL ☐ GAS WELL ☒ OTHER CO2

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: Mid-Continent Oil & Gas Reserves, Inc.

8. FARM OR LEASE NAME: Charger

3. ADDRESS OF OPERATOR: 12700 Park Central #1404, Dallas, Texas 75251

9. WELL NO.: #4 Charger

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: T33S, R2E, Sec. 13 NE NW 501' FNL, 2078' FWL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 13, T33S, R2E

14. PERMIT NO.: 43-017-30122

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 8,291.0 GR

12. COUNTY OR PARISH: Garfield

13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			☐
XX (Other) Perforate for production				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Begin June 21 through June 23, 1986

1st Interval	-	Shinarump	2330'	- 2460'	- 28 holes
2nd Interval	-	Timpoweap	3190'	- 3208'	- 6 holes
3rd Interval	-	Kaibab	3302'	- 3498'	- 30 holes
4th Interval	-	Toroweap-White Rim	3505'	- 3700'	- 16 holes

RECEIVED
JUN 16 1986
DIVISION OF
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED John D. Grayton TITLE President DATE June 10, 1986

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

CONFIDENTIAL

Form 3160-4
(November 1983)
(formerly 9-330)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

3

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

080606

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

RECEIVED
JUL 28 1986
DIVISION OF OIL, GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO.: U-53744
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
7. UNIT AGREEMENT NAME: N/A
8. FARM OR LEASE NAME: Charger
9. WELL NO.: #4 Charger
10. FIELD AND POOL, OR WILDCAT: Wildcat
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 13,T33S, R2E

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: Mid-Continent Oil & Gas Reserves, Inc.

3. ADDRESS OF OPERATOR: 12700 Park Central #1404, Dallas, TX 75251

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: NENW Sec. 13, T33S, R2E, 501'FNL, 2078'FWL
At top prod. interval reported below
At total depth

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
43-017-30122	9-12-84	Garfield	Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
10-1-84	11-2-84	11/ 3/84 &6/21/86	8,391'GL	8401'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
3721' TD	3719'	N/A	→	X	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: see attached

25. WAS DIRECTIONAL SURVEY MADE

26. TYPE ELECTRIC AND OTHER LOGS RUN

27. WAS WELL CORED

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)
Intervals-see attached schedule
Size: .39 OD
# of holes: 80

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
---	Thru casing	Shut-in

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF PD	WATER—BBL.	GAS-OIL RATIO
6-21-86	2	1.25-1.50"			2,369		

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
--	99		--		--	--

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Vented

TEST WITNESSED BY: BLM Theron Mitchell

35. LIST OF ATTACHMENTS: Perforating Schedule, and Restricted (choke) Open Flow Potential Measurements - Tabular and graphical from Tefreller, Inc.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED [signature] TITLE President DATE 7-16-86

*(See Instructions and Spaces for Additional Data on Reverse Side)

860808 CP

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			See Attached

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

CHARGER #4

Start Date: June 21st thru June 22, 1986

Tops of Formations:

Chinle	1747'
Shinarump	2281'
Moenkopi	2467'
Timpoweap	3189'
Kaibab	3301'
Toroweap/ White Rim	3500'
TD	3722'

4½" Casing

1st Interval - Shinarump

2330' - 2354'	8 holes	1 every 3 feet	
2360' - 2396'	12 holes	" " " "	
2408' - 2418'	2 holes	" " " "	
2422' - 2428'	2 holes	" " " "	
2434' - 2440	2 holes	" " " "	
2456' - 2460	2 holes	" " " "	
	28 holes		

2nd Interval - Timpoweap

3190' - 3196'	3 holes	1 every 2 feet
3202' - 3208'	3 holes	" " " "
	6 holes	

3rd Interval - Kaibab

3302' - 3304'	1 hole	
3312' - 3316	2 holes	1 every 2 feet
3340' - 3346'	2 holes	" " " "
3370' - 3474'	21 holes	1 " 5 feet
3478' - 3498'	4 holes	" " " "
	30 holes	

4th Interval - Toroweap/White Rim

3505' - 3506'	1 hole	
3508' - 3510'	1 hole	
3516' - 3524'	3 holes	1 every 3 feet
3526' - 3528'	1 hole	
3572' - 3594'	7 holes	1 every 3 feet
3686' - 3700'	3 holes	
	16 holes	

Total: 80 Holes

Size: .39 OD

Mid-Continent Oil Co.

Charger #1 — S29-T32S-R3E

Charger #4 — S13-T33S-R2E

Garfield County, Utah

Perforating Schedule

6-16-86 (Monday) — Left Brighton @ 7:15 a.m. Arrived Escalante @ 9:15 p.m. Stopped in Grand Junction and picked up bolts, ring gaskets and gauges needed for wellhead on Charger #4. Purchased from Big Red Supply & Mining Inc. Contacted Tefteller Inc. to arrive on Thursday to test wells. Goodwell called @ 10:30 p.m. and had truck (water pump) in Thompson, Utah and got as far as Green River.

6-17-86 (Tuesday) — Checked location to be sure we could get in! Met Goodwell in Boulder @ 12:45 p.m. Took to location #1. Rigged up! Removed one master gate and block flange to have enough room under boom truck for lubricator and guns, etc. Ran tie in log and collar locator. Total depth of 3377.5 plug back. Had to have swedge welded into bonnet to make lubricator work.

6-18-86 (Wednesday) — Perforated all zones in Charger #1 w/160 total holes .39 OD. Shot @ bottom and let pressure equalize. Then worked under lubricator all day. Ran H2S dectector after perforating @ 3000' + or - and had 0% H2S @ surface.

6-19-86 (Thursday) — Had Lyman haul X-mass tree to Charger #4 and remove orbit valve and flange. Installed X-mass tree on same. Check H2S @ surface on Charger #4, 40 ppm. Witness by BLM, Theron Mitchell. Went as far as we could go. Met tester @ Sand Creek @ 3:30 p.m. Took to Charger #1. Removed bonnet and installed 4 1/16" flange x 4" 8RD, swedge to 2". Rig up pressure recorder and certified orifice tester. Perforators started off location for Charger #4 and master cylinder went out on boom truck. Going for parts, etc. Did not get off of Charger #1 location.

6-20-86 (Friday)

Finished nippling up wellhead on Charger #4. Perforators went to Cedar City and picked up master cylinder. Replaced same. Moved to Charger #4 from Charger #1. Rigged up and logged same with gamma ray tie in and collar locator. Total depth of 3721' (our plug back by casing 3719').

6-21-86 (Saturday)

To Charger #4. Rig up lubricator and perforated from 2330' to total depth w/80 select fire .39 OD jets. Perforated 2330' to 2354' w/8 holes, one every 3'. Instant blow, 0# to 68# in 15 minutes. Continued perforating.

Increase in pressure @ 3303' to 71#
Increase in pressure @ 3340' to 79#
Increase in pressure @ 3370' to 87#
Increase in pressure @ 3516' to 88#
Increase in pressure @ 3572' to 89#
Increase in pressure @ 3686' to 99#

Buildup for 30 minutes. No increase in pressure. Ran 4 point prover test. Witnessed by BLM, Theron Mitchell.

Perforators off location by 1:30 p.m.
Completed testing @ 2:15 p.m.
To Escalante and signed all work tickets with Lyman Construction.

6-22-86 (Sunday)

Left Escalante @ 4:45 a.m. Stopped in Grand Junction @ Big Red Supply and returned some unused bolts, flange, seal rings and valve. Signed tickets.

Bill D. Cranmer

Mid-Continent Oil Company
Charger #4

Flow Tests

#	Date	Depth	Test
1	10-31	3005'	3/4" Choke. Initial shut in pressure: 25 psi. Flow pressure: 25 psi. 20 minute flow time Rate through choke: 461 MCFPD. Calculated open flow potential: 29.504 MMCFPD.
2	10-31	3098'	3/4" Choke. Initial shut in pressure: NA. Flow pressure: 27 psi. Approx. 20 minute flow time. Rate through choke: 487 MCFPD. Calculated open flow potential: 31.168 MMCFPD.
3	11-1	3285'	3/4" Choke. Initial shut in pressure: 40 psi. Flow pressure: 37 psi. 15 minute flow time. Rate through choke: 605 MCFPD. Calculated open flow potential: 38.720 MMCFPD.
4	11-2	3720'	3/4" Choke. Shut in pressure after well shut in 10 hours: 74 psi. Flow pressure: 65 psi. Flow time: NA. Rate through choke: 930 MCFPD. Calculated open flow potential: 59.520 MMCFPD.

Mid-Continent Oil Company
Charger #4

DAILY OPERATIONS

The following summary of drilling operations was prepared from the rig tour sheets. Depths are at start of morning tour (11:00 p.m.). Hours are shown in parentheses.

Day	Date	Depth	Operation
1	10-1	0'	Rig up (1). Drill (23).
2	10-2	59'	Drill (10 1/2). Survey, trip out, lay down subs (1). Run casing (2 1/2). Cement (1). Wait on cement, rig up bluie line (4). Cut off, nipple up (2). Trip in (2 1/2). Drill (1/2).
3	10-3	200'	Drill (4 1/2). Survey (1/2). Drill (3). Survey (1/2). Drill (1/2). Tie in 15w air service compressor and rig--clean hole (2). Drill (1). Work pipe, clean hole, rig up mist pump (2 1/2). Drill (1). Survey (1/2). Wait on water (1). Drill (5). Survey (1/2). Drill (1 1/2).
4	10-4	627'	Drill (7 3/4). Survey (1/4). Drill (4 1/2). Survey (1/2). Drill (6). Survey (1/2). Drill (4). Survey (1/2).
5	10-5	1094'	Service rig (1/2). Drill, survey, drill (13 1/2). Service rig (1/2). Survey (1/2). Drill (1). Trip (4 1/2). Ream to bottom, unload hole (1/2). Drill (3).
6	10-6	1431'	Drill (12). Rig up compressors and weld bushings, dry up hole (7). Drill (1/2). Work pipe to get returns (2 3/4). Work stuck pipe (1 3/4).
7	10-7	1557'	Work stuck pipe (1 1/2). Pump down 500 gal diesel (2 1/2). Work stuck pipe (20).
8	10-8	1557'	Pump down 20 bbl stiff foam (3 1/2). Work stuck pipe (1 1/2). Work pipe out of hole, circulate and condition hole (5 3/4). Trip out (1 1/4). Dump mud and LCM hole and drive down LCM bridging--pick up 2 stands of DC and kelly 3 times and drive through bridge at base of 13 3/8"--lay down DC (6 1/4). Trip in with 12 1/4" bit--hit bridge at 1114' (3 3/4). Clean hole, lay down 4 joints pipe, run 2 stands (total 15 joints) (2).

Mid-Continent Oil Company
Charger #4

DAILY OPERATIONS (cont'd)

Day	Date	Depth	Operation
9	10-9	1557'	Ream and blow hole one joint to 1247' (2). Trip out and lay down 1 joint (1). Wait on cement and LCM (8). Rig up to cement (1/2). Cement 7 yards with bulk sawdust (1/2). Wait on cement (8 1/2). Trip in, tag bridge at 930', lay down 1 joint (1). Blow hole, wash and drill cement (2 1/2).
10	10-10	1557'	Ream and blow hole 1029' - 1060' (2). Pull 3 stands, change out rotating head and mix mud, wait on cement, fill to 1030' (9). Trip in 2 stands, ream down 1 joint to 1091', wash and ream to 1153'. Formation broke down. Try to aerate mud--lost returns between 1153' - 1123' (3). Trip in, lay down 2 joints (1). Pump LCM and gel with 100 sacks sawdust, wait on cement (2). Trip in, wash and ream to 1060' (7).
11	10-11	1557'	Blow hole (1). Trip out, stand back DC (1). Trip in with DP at 1178' (1). Rig up and mix cement (4). Pump 35 sacks cement (1/2). Wait on cement (3 3/4). Tag cement and fill (1/4). Mix cement (1). Cement with 30 sacks, chase with water, pull 124' drill pipe (1/4). Wait on cement, tag cement and fill (3 1/4). Mix cement (1 3/4). Cement with 35 sacks, chase with water, pull 124' drill pipe (1/4). Wait on cement (4). Blow hole, trip in (1). Wait on cement (1).
12	10-12	1557'	Wait on cement (1). Cement (1). Wait on cement, break 12 1/2" bit and sub off, 6 1/2" DC make up on 8 1/2" DC (6). Trip in with DC (1/2). Wait on cement (5 1/2). Trip in, tag at 962' (3/4). Drill cement (7 3/4). Trip out (1/2). Wait on orders (1).
13	10-13	1557'	Wait on water pump for air compressor (12). Work on rig (11). Trip in with DP for cement (1).
14	10-14	1557'	Wait on cementers (10 1/2). Trip out (1). Wait on cementers (12 1/2).
15	10-15	1557'	Wait on cementers (4). Trip in (1/2). Wait on cementers (5 1/2). Wash and ream to 1350', lost air (1 1/2). Rig up cement and cement at 1360' with 100 sacks, wait on cement (2). Tag at 1360', no fill, cement with 50 sacks, wait on cement (1 1/2). Tag at 1345', 15' fill, cement with 50 sacks, wait on cement (4). Tag at 1210, 95' fill, cement, wait on cement (5).

Mid-Continent Oil Company
Charger #4

DAILY OPERATIONS (cont'd)

Day	Date	Depth	Operation
16	10-16	1557'	Wait on cement (2 1/2). Tag at 1110', trip out, trip in with DC and DP, lay down 10 joints (4 1/2). Ream cement to 1123' (5). Drill cement (12).
17	10-17	1557'	Drill cement to 1520', fill 1520' - 1557' (9 1/4). Drill (2 1/4). Trip in 4 stands, lay down 2 joints (1/2). Trip in 6 stands (1/4). Work on mist pump (11 3/4).
18	10-18	1617'	Rig up mist tank (3 1/2). Trip in, hit bridge at 1050', circulate to get mist (1/2). Circulate and work pipe (3). Trip in (1/2). Blow hole, no returns (1 1/2). Trip in 7 stands to 990', tight 6 stands (1/2). Blow hole, no returns (2). Trip out (1/2). Blow hole, no returns (1). Pull out 2 stands (1/4). Blow hole (1 1/4). Make connection, blow hole 816' to 968', lay down 4 joints, run 2 stands, blow hole (3). Trip out, lay down 8" DC (4). Wait on casing crew (2).
19	10-19	1617'	Wait on casing crew (3). Rig up and run casing (3 1/2). Wait on cementers (8 1/2). Rig up cementers, cement, work casing, rig down cementers (4 1/2). Wait on ready-mix truck, nipple down (2). Run ready mix down back side of casing (1). Wait on cement (1 1/2).
20	10-20	1617'	Wait on cement (3). Run cement down backside (1). Pump cement down backside with cementers (5 1/2). Wait on cement (1). Cut off casing, nipple up rotating head (1). Trip in, pull up bottom hole DC (1/2). Make up bit, trip in to 900', get kelly, unload hole, trip in to 1173', unload hole (3). Pick up 5 singles, tag float at 1430' (1). Drill float, shoe joint had no fill in same, fill at 1465' - 1480', open hole to 1518', pea gravel fell in and had 10' of fill (6). Nipple down rotating head, dig collar (2).
21	10-21	1617'	Dig collar (5). Cut off casing weld on breaker head (7). Nipple up, test BOP, leak on bottom flange--retighten (12).
22	10-22	1617'	Rig shut down--no crew (12). Nipple up, test BOP, blanks 1500# pipe 1500# (4). Go in hole with 8 3/4" bit, tag cement at 1275' (3/4). Lay down 10 joints, run in 5 stands, drill cement (estimated cement behind casing 52') (7 1/4).

Mid-Continent Oil Company
Charger #4

DAILY OPERATIONS (cont'd)

Day	Date	Depth	Operation
23	10-23	1617'	Drill cement (4 1/2). Drill fill, clean out to 1617', drill 1617' - 1643'--no returns. Try to dry hole at 1643', hole tight. Pulled to casing, dry at casing at 1460' (7 1/2). Work pipe, blow hole dry, pick up 5 singles and ream back to bottom (6). Drill to 1673' (2). Work pipe, blow hole, wait on mud (1/2). Pull out 6 singles (1/2). Wait on mud (1). Mix mud (2).
24	10-24	1673'	Mix mud (3). Pump mud in hole, 150 bbl, unable to break circulation (1). Mix mud (3). Trip into fill at 1635', pump air and mud, got circulation (2). Build flow line for air drilling (5). Survey (1/4). Wash 70' to bottom (3/4). Drill (8 1/2). Survey (1/2).
25	10-25	1801'	Clean and air out pump (1). Drill (11 1/2). Survey (1/2). Drill (11).
26	10-26	2204'	Drill (8). Circulate samples at 2299' (1/2). Drill (1 1/2). Circulate samples at 2310' (1/2). Drill (1 1/2). Circulate, work pipe (2). Mix gel pill, work pipe (1 1/2). Trip out (tight), pump out, lay down 4 joints (1 1/2). Wait on casing, 14 stands out, mix mud (4 1/2). Trip out, lay down 1 single and DC (1 1/2). Rig up to run casing (1).
27	10-27	2330'	Run casing to 1460' (3). Build swedge, drop ball and shear automatic fillup (1). Run casing, bridges at 1520', 1545', 1620', 2050', 2170' (1). Pump on casing and work to 2325', wait on cement (7). Wait on cementers (12).
28	10-28	2330'	Wait on cementers (12). Rig up to cement (1). Cement with 150 sacks (1). Pick up stack, set slips, cut off casing, nipple up (11).
29	10-29	2330'	Nipple up BOP (4 1/2). Strap DC and caliper (1/2). Rebuild bluie line (7). Trip in, pick up drill collars (4). Tag cement at 2303', dry up hole and drill cement (2 3/4). Drill float, drill (3/4). Dry up hole (2). Drill and dusting (2 1/2).
30	10-30	2452'	Survey (1/4). Drill (8). Survey (1/2). Drill (6 1/4). Survey (1/2). Drill (8 1/2).

Mid-Continent Oil Company
Charger #4

DAILY OPERATIONS (cont'd)

Day	Date	Depth	Operation
31	10-31	2965'	Drill (3). Trip for bit, survey (5 1/2). Run flow test, change rotating head rubber (1 1/2). Drill (4). Flow test (1/2). Drill (8 1/2). Survey (1/2). Drill (1/2).
32	11-1	3190'	Drill (7 1/2). Replace water pump booster, run flow test (2 1/4). Drill (11 1/4). Replace rotating head rubber (1 1/2). Clean hole (1/2). Trip out (1).
33	11-2	3720'	Trip out (2). Close blind rams, shut in well (15). Rig up loggers and log (7).
34	11-3	3720'	Rig up to run casing.

Mid-Continent Oil Company
Charger #4

MUD RECORD

Drilled with air/mist to 1673'; then aerated mud to 2330'; then air/dust to TD. Hole was logged without difficulty.

Day	Date	Depth	Weight
24	10-24	1673'	8.6
25	10-25	1801'	8.6
26	10-26	2204'	8.6

3-30-87

Norm,

These wells produce from a combination of zones. They cannot be characterized as a single producing zone or even as a transition interval. There are 4 distinct geological units contributing to the production from these wells.

Shinarump Sandstone
Kaibab Limestone
Toroweap
Organ Rock Shale

It is a very complex situation. I suggest that we do not attempt to force fit a single producing interval to describe these wells. We might list a combination of zones on the computer record. Perhaps even investigate modifying data input to allow special cases like this.

-JRB

VICKY,
LETS CREATE A NEW PZ CATEGORY FOR THE COMPUTER THAT SOMEHOW INCLUDES EACH OF THE ZONES IN QUESTION, SINCE THERE IS APPARENTLY A CONSULTING SITUATION. IF PROD COULD BE REPORTED SEPARATELY, THEN WE WOULD JUST EACH PZ SEPARATELY. JOHN WILL NEED TO BE INVOLVED TO APPROVE WHAT EVER APPROVE WHICH IS USED.
THX,
Norm
3-30-87

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

April 1, 1987

TO: Memo to File

FROM: Vicky Carney VC

RE: Charger #4 API# 43 017 30122 SEC 13 T33S R02E

The above referenced well is multiply commingled into the Shinarump (SRMP), Kaibab (KBAB), Toroweap/White Rim (WHRM), Organ Rock (ORRK), and Cedar Mesa (CDMSA).

We are using the Kaibab (KBAB) as the predominant Producing Zone per R J Firth and John Baza.

cc: Well Files
Reading File

0511S-25

DM

PRD916611428

DOGM 56-64-21
an equal opportunity employer

UTAH NATURAL RESOURCES
Oil, Gas & Mining

355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Ut 84180-1203. ●(801-538-5340)

Page 1 of 1

MONTHLY OIL AND GAS PRODUCTION REPORT

Operator name and address:

●MID-CONTINENT OIL & GAS
P O BOX 810683
DALLAS TX 75381
ATTN: JOHN SLAWTER

RECEIVED
JUN 12 1989
DIVISION OF
OIL, GAS & MINING

Utah Account No. N7050

Report Period (Month/Year) 5 / 89

Amended Report ☐

Well Name API Number Entity Location	Producing Zone	Days Oper	Production Volume Oil (BBL)	Gas (MSCF)	Water (BBL)
CHARGER #1 4301730120 10776 32S 03E 29	MNKP	-0-	-0-	-0-	-0-
CHARGER #4 4301730122 10777 33S 02E 13	KBAB	-0-	-0-	-0-	-0-
TOTAL			-0-	-0-	-0-

Comments (attach separate sheet if necessary) wells are shut in, there is no production

I have reviewed this report and certify the information to be accurate and complete. Date June 8, 1989

Authorized signature J Slawter Secy/Treas. Telephone 214/239-4971

PLEASE COMPLETE FORMS IN BLACK INK

DM

PRD916611428

DOGM 56-64-21
an equal opportunity employer

UTAH NATURAL RESOURCES
Oil, Gas & Mining

355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Ut 84180-1203. ● (801-538-5340)

Page 1 of 1

MONTHLY OIL AND GAS PRODUCTION REPORT

Operator name and address:

● MID-CONTINENT OIL & GAS
P O BOX 810683
DALLAS TX 75381
ATTN: JOHN SLAWTER

RECEIVED
JUN 12 1989
DIVISION OF
OIL, GAS & MINING

Utah Account No. N7050

Report Period (Month/Year) 5 / 89

Amended Report ☐

Well Name API Number Entity Location	Producing Zone	Days Oper	Production Volume Oil (BBL)	Gas (MSCF)	Water (BBL)
CHARGER #1 U-38347 4301730120 10776 32S 03E 29	MNKP	-0-	-0-	-0-	-0-
CHARGER #4 U-53744 4301730122 10777 33S 02E 13	KBAB	-0-	-0-	-0-	-0-
TOTAL			-0-	-0-	-0-

Comments (attach separate sheet if necessary) wells are shut in, there is no production

I have reviewed this report and certify the information to be accurate and complete. Date June 8, 1989

Authorized signature J. Slawter Secy/Treas. Telephone 214/239-4971

PLEASE COMPLETE FORMS IN BLACK INK

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION & SERIAL NO.: U-53744

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Charger #4

9. WELL NO.: 4

10. FIELD AND POOL, OR WILDCAT: Sunrise Field-wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: T33S, R2E, Sec. 13

12. COUNTY: Garfield

13. STATE: Utah

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR: Mid-Continent Oil & Gas Reserves, Inc.

3. ADDRESS OF OPERATOR: P.O. Box 810683, Dallas, TX 75381

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface
At proposed prod. zone

RECEIVED
AUG 07 1989
DIVISION OF OIL, GAS & MINING

14. API NO.: 4301730122

15. ELEVATIONS (Show whether DF, RT, GR, etc.):

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐
SHOOT OR ACIDIZE	☐	ABANDON	☐
REPAIR WELL	☐	CHANGE PLANS	☐
(Other)			

APPROX. DATE WORK WILL START ______

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
(Other) change of Operator			☐

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

DATE OF COMPLETION Oct.1st. 1984

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

* Must be accompanied by a cement verification report.

The Operator on the above well has been changed to:

H.B. BROWN OIL CO.
1710 So. Bay Front
Balboa Island, CA. 92662

Attn: Mr. Harry B. Brown, President

18. I hereby certify that the foregoing is true and correct

SIGNED [signature] TITLE Sec/Treas. DATE 8/4/89

(This space for Federal or State office use)

APPROVED BY ______ TITLE ______ DATE ______
CONDITIONS OF APPROVAL, IF ANY:

See Instructions On Reverse Side

(3/89)

Division of Oil, Gas and Mining

PHONE CONVERSATION DOCUMENTATION FORM

Charger 4 (43-017-30122)
13-33S-2E

Route original/copy to:

[] **Well File** Charger 1-[illegible] (43-017-30120) [✓] **Suspense** [] **Other**

29-32S-3E (Return Date) 8-31-89

(Location) Sec___ Twp___ Rng___ (To - Initials) TAS

(API No.) ___

1. Date of Phone Call: 1:35 Time: 8-4-89

2. DOGM Employee (name) TAS (Initiated Call [✓])
Talked to:

Name ___ (Initiated Call [ ]) - Phone No. ( )

of (Company/Organization) Mid-Continent

3. Topic of Conversation: Chg of Opr.

4. Highlights of Conversation: Mid-Continent is no longer at current phone number in Nail. No forwarding number - Called directory assistance no record of H.B Brown Oil Co. or Harry B Brown in Balboa Island CA. Spoke with VC BLM on record Mid Continent is operator and have Person sending in reports to BLM is Irvin Lucy 303-234 0141 8 9 84 left message on answering machine at 2:30. 714-239 4471 9.20.89 1:23 no answer 714-673-2251 9-21-89 8:18 AM busy signal - 9-21-89 Spoke w/ Mr Brown he indicates he owns the well but we have to contact his attorney.

Division of Oil, Gas and Mining
PHONE CONVERSATION DOCUMENTATION FORM

Charger 4 (43-017-30122) 13-33S-2E

Route original/copy to:
[] Well File Charger 1-29 (43-017-30120) 29-32S-3E   [✓] Suspense (Return Date) 8-31-89 (To - Initials) TAS   [] Other

(Location) Sec___Twp___Rng___
(API No.) ___

1. Date of Phone Call: 1:35   Time: 8-9-89

2. DOGM Employee (name) TAS (Initiated Call [✓])
Talked to:

Name ___ (Initiated Call []) - Phone No. ( )

of (Company/Organization) Mid-Continent

3. Topic of Conversation: Chg of Opr.

4. Highlights of Conversation: Mid-Continent is no longer at current phone number we have - no forwarding number - Called directory assistance no record of H.B Brown Oil Co. or Harry B Brown in Balboa Island CA. Spoke with BLM. BLM on record Mid-Continent is operator and lessee. Person sending in reports to BLM is Orin Duey 303-234-0141 8.9.89 left message on answering machine at 2:30 214-239-4971 9-00-89 1:03 no answer 714-673-2051 9-01-89 8:18 AM busy signal - 9-01-89 spoke w/ Mr Brown he indicates he owns the well but we have to contact his attorney.

Division of Oil, Gas and Mining

PHONE CONVERSATION DOCUMENTATION FORM

Charger # (43-017-30122)
13-33S-2E

Route original/copy to:

[] **Well File** Charger 1 (43-017-30120) 29-32S-3E
(Location) Sec__ Twp__ Rng__
(API No.) _____

[] **Suspense**
(Return Date) _____
(To - Initials) _____

[] **Other** _____

1. Date of Phone Call: 9-1-89 Time: 12:30

2. DOGM Employee (name) Vicky (Initiated Call [X])
Talked to:
Name JOHN SLAWTER (Initiated Call [ ]) - Phone No. ~~214-233-3380~~ WRONG # 214-239-4971
of (Company/Organization) MID-CONTINENT 17050 Sundry
PO 810683
DALLAS
75381

3. Topic of Conversation: JUNE REPORT DUE
JULY DUE SEPT 16

4. Highlights of Conversation: THE COMPANY THAT ANSWERED SAID THEY GET MORE CALLS ~~FROM~~ FOR JOHN SLAWTER THAN FOR THEIR OWN EMPLOYEES. BUT HE DOES NOT WORK AT THIS #. 214-233-3380.
ASKED TAMI TO REMOVE ↗ & REPLACE WITH 214-239-4971.
12:35 Busy

9/14/89 11:10 left msg with ans service to call me

#B. BROWN OIL CO. (NEW OPERATOR)
1710 So Bay Front
BALBOA Island CA
92662 714-673-4256

Division of Oil, Gas and Mining

PHONE CONVERSATION DOCUMENTATION FORM

Charger 4 (43-017-30122)
13-33S-2E

Route original/copy to:

[] Well File Charger 1 (43-017-30120) 29-32S-3E
(Location) Sec__ Twp__ Rng__
(API No.) _____

[] Suspense
(Return Date) _____
(To - Initials) _____

[] Other _____

1. Date of Phone Call: 9-1-89 Time: 12:30

2. DOGM Employee (name) Vicky (Initiated Call [X])
Talked to:
Name John Slawter (Initiated Call [ ]) - Phone No. 214-239-4971 ~~(214) 233-3380~~ WRONG #
of (Company/Organization) Mid-Continent 17050 Surface PO 810683 Dallas 75381

3. Topic of Conversation: June Report Due
July Due Sept 16

4. Highlights of Conversation: ~~The~~ company that answered said they get more calls ~~from~~ for John Slawter than for their own employees. But he does not work at this #. 214-233-3380.
Asked Tami to remove ↗ & replace with 214-239-4971
12:35 Busy

9/14/89 11:10 left msg with ans service to call me

#B. Brown Oil Co. (new operator)
1710 So Bay Front
Balboa Island CA
92662 714-673-4256

Division of Oil, Gas and Mining

PHONE CONVERSATION DOCUMENTATION FORM

Charger 4 (43-017-30482)
19-33S-2E

Route original/copy to:

[X] **Well File** Charger 1 (43-017-30120) 29-32S-3E
(Location) Sec___ Twp___ Rng___
(API No.) _____

[ ] **Suspense**
(Return Date) _____
(To - Initials) _____

[ ] **Other** _____

1. Date of Phone Call: 9-21-89 Time: _____

2. DOGM Employee (name) Dami Vraing (Initiated Call [X])
Talked to:
Name Mr Brown (Initiated Call [ ]) - Phone No. (714) 673-4256
of (Company/Organization) H. B. Brown

3. Topic of Conversation: Chg of Opr.

4. Highlights of Conversation: Spoke w/ Mr Brown he indicated he needed me to go through his Attorney Dirk Gushee for further info on this well.
SLC @ 531-8446

Division of Oil, Gas and Mining

PHONE CONVERSATION DOCUMENTATION FORM

Chargers 4 (43-017-30122)
13-935-2E1

Route original/copy to:

[X] Well File Chargers 1 (43-017-30120) 29-325-3E [] Suspense (Return Date) _____ (To - Initials) _____ [] Other _____

(Location) Sec___ Twp___ Rng___

(API No.) _____

1. Date of Phone Call: 9-21-89 Time: _____

2. DOGM Employee (name) Lisha Cameron (Initiated Call [])
Talked to:

Name Orville Gushee (Initiated Call [ ]) - Phone No. (801) 531-8446

of (Company/Organization) H. B. Brown.

3. Topic of Conversation: Chg of Oper.

4. Highlights of Conversation: Mr Gushee indicated as of this time they do not own nor are they ~~not~~ responsible for this well. They are in legal difficulties with Mid-Con. until these legal difficulties are cleared up Mr Gushee will not absorb responsibility for this well. Mr Gushee would however like the Division to send all appropriate forms for his files.

Division of Oil, Gas and Mining

PHONE CONVERSATION DOCUMENTATION FORM

Charger 4 (43-017-30122)
13-33S-2E

Route original/copy to:

[X] Well File Charger 1 (43-017-30120) 29-32S-3E

(Location) Sec ___ Twp ___ Rng ___

(API No.) _____

[ ] Suspense
(Return Date) _____
(To - Initials) _____

[ ] Other
_____
_____
_____

1. Date of Phone Call: 9-21-89 Time: _____

2. DOGM Employee (name) Lisha Cameron (Initiated Call [])
Talked to:
Name Orville Gushee (Initiated Call [ ]) - Phone No. (801) 531-8446
of (Company/Organization) H. B. Brown.

3. Topic of Conversation: Chg of Oper.

4. Highlights of Conversation: Mr Gushee indicated as of this time they do not own nor are they ~~liable~~ responsible for this well. They are in legal difficulties with Mid-Con. until these legal difficulties are cleared up Mr Gushee will not absorb responsibility for this well. Mr Gushee would however like the Division to send all appropriate forms for his files.

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

September 28, 1989

H.B. Brown Oil Company
c/o Mr. Oliver Gushee
1850 Beneficial Life Tower
Salt Lake City, Utah 84111

Dear Mr. Gushee:

Re: Change of Operator and Reporting Requirements
Charger #1 Well (API 43-017-30120) and Charger #4 Well (API 43-017-30122)

In response to your conversation with Tami Searing of this office on September 22, 1989, enclosed are copies of the Utah Oil and Gas Conservation General Rules and report forms, and the August 4, 1989 sundry notices from Mid-Continent Oil and Gas Reserves, Inc. informing the division that H.B. Brown Oil Company is the new operator of the above referenced wells.

It is our understanding that legal problems are currently preventing H.B. Brown Oil Company from taking over as well operator and that Mid-Continent remains the bonded operator. Mid-Continent is being advised by this office that the division records will continue to show Mid-Continent as operator at this time.

At such time when all problems have been resolved and Brown Oil takes over as operator, please advise us of the change of operator by submitting Form 9, Sundry Notices and Reports on Wells, and of your position as designated agent for Brown Oil by submitting Form 5, Designation of Agent or Operator.

If we can be of further assistance, please feel free to call.

Sincerely,

Don Staley

Don Staley
Administrative Supervisor

ldc
Enclosures
cc: D.R. Nielson
R.J. Firth
V.L. Carney
T.A. Searing
BLM - Cedar City
Well Files
WE11/30-31

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

September 28, 1989

H.B. Brown Oil Company
c/o Mr. Oliver Gushee
1850 Beneficial Life Tower
Salt Lake City, Utah 84111

Dear Mr. Gushee:

Re: Change of Operator and Reporting Requirements
Charger #1 Well (API 43-017-30120) and Charger #4 Well (API 43-017-30122)

In response to your conversation with Tami Searing of this office on September 22, 1989, enclosed are copies of the Utah Oil and Gas Conservation General Rules and report forms, and the August 4, 1989 sundry notices from Mid-Continent Oil and Gas Reserves, Inc. informing the division that H.B. Brown Oil Company is the new operator of the above referenced wells.

It is our understanding that legal problems are currently preventing H.B. Brown Oil Company from taking over as well operator and that Mid-Continent remains the bonded operator. Mid-Continent is being advised by this office that the division records will continue to show Mid-Continent as operator at this time.

At such time when all problems have been resolved and Brown Oil takes over as operator, please advise us of the change of operator by submitting Form 9, Sundry Notices and Reports on Wells, and of your position as designated agent for Brown Oil by submitting Form 5, Designation of Agent or Operator.

If we can be of further assistance, please feel free to call.

Sincerely,

Don Staley

Don Staley
Administrative Supervisor

ldc
Enclosures
cc: D.R. Nielson
R.J. Firth
V.L. Carney
T.A. Searing
BLM - Cedar City
Well Files
WE11/30-31

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

① RWM ✓
② well file.

September 28, 1989

Mr. John Slawter
Mid-Continent Oil and Gas Reserves, Inc.
P.O. Box 810683
Dallas, Texas 75381

Dear Mr. Slawter:

Re: Change of Operator and Reporting - Charger #1 Well (API 43-017-30120) and Charger #4 Well (API 43-017-30122)

The Division of Oil, Gas and Mining has been advised by Mr. Oliver Gushee, attorney for H.B. Brown Oil Company, that the change of operator of the above referenced wells from Mid-Continent Oil and Gas Reserves, Inc. to H.B. Brown Oil Company has not yet been finalized. Until such time that all problems are resolved and Brown Oil becomes accountable for these wells, it will continue to be the responsibility of Mid-Continent, as the bonded operator, to submit all required reports to the division. Currently, the Monthly Oil and Gas Production Reports and the Monthly Oil and Gas Disposition Reports for June and July 1989 are past due.

Your prompt response to this matter is appreciated.

Sincerely,

Don Staley

Don Staley
Administrative Supervisor

ldc
Enclosures
cc: D.R. Nielson
R.J. Firth
V.L. Carney
T.A. Searing
BLM - Cedar City
Well Files
WE11/32

Suspense
10-28-89

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

September 28, 1989

Mr. John Slawter
Mid-Continent Oil and Gas Reserves, Inc.
P.O. Box 810683
Dallas, Texas 75381

Dear Mr. Slawter:

Re: Change of Operator and Reporting - Charger #1 Well (API 43-017-30120) and Charger #4 Well (API 43-017-30122)

The Division of Oil, Gas and Mining has been advised by Mr. Oliver Gushee, attorney for H.B. Brown Oil Company, that the change of operator of the above referenced wells from Mid-Continent Oil and Gas Reserves, Inc. to H.B. Brown Oil Company has not yet been finalized. Until such time that all problems are resolved and Brown Oil becomes accountable for these wells, it will continue to be the responsibility of Mid-Continent, as the bonded operator, to submit all required reports to the division. Currently, the Monthly Oil and Gas Production Reports and the Monthly Oil and Gas Disposition Reports for June and July 1989 are past due.

Your prompt response to this matter is appreciated.

Sincerely,

Don Staley

Don Staley
Administrative Supervisor

ldc
Enclosures
cc: D.R. Nielson
R.J. Firth
V.L. Carney
T.A. Searing
BLM - Cedar City
Well Files
WE11/32
Prod. File - Mid Continent

MID-CONTINENT OIL

Executive Offices
12700 Park Central Place, Suite 1404
Dallas, Texas 75251
214/233-3380 • 214/233-3381

May 25, 1989

Brown Oil Company
1715 So. Bay Front
Balboa Island, CA. 92662

Attn: Mr. Harry B. Brown, President

RE: Resignation As Designated Operator

Dear Mr. Brown:

As per this date, Mid-Continent Oil & Gas Reserves, Inc., hereby resigns as the Designated Operator of the Escalante Anticline Field located in Garfield County, Utah. This involves Federal leases U38347 (Charger #1), U29834, U57341 (Charger #2) and U33919, U53744 (Charger #4). It is specifically pointed out that the Death Hollow Unit was terminated in 1986.

You are further instructed that Pacific International Production Co., of which Mid-Continent Oil is a subsidiary, approves this action as of the 25th day of May, 1989.

Very truly yours,

MID-CONTINENT OIL & GAS RESERVES, INC.

By: _____
John D. Slawter, President

PACIFIC INTERNATIONAL PRODUCTION CO.

by: _____
John D. Slawter, President

MID-CONTINENT OIL (N7050)

Executive Offices:
12700 Park Central Place, Suite 1404
Dallas, Texas 75251
214/233-3380 • 214/233-3381
P.O. Box 810683, Dallas, TX. 75381

October 21, 1989

CERTIFIED MAIL #P953 620 016

Both wells shut in. Prod. Reports rec'd through Sept '89.

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT. 84180-1203

Attn: Mr. Don Staley, Administrative Supervisor

RE: Change of Operator and Reporting - Charger #1 Well (API 43-017-30120) and Charger #4 Well (API 43-017-30122)

Dear Don:

In reference to your letter of September 28th pertinent to the above captioned, Harry Brown was notified on May 25th, 1989 that Mid-Continent Oil & Gas Reserves, Inc., with the approval of Pacific International Production Co., resigned as the designated Operator as per the Death Hollow Unit designation in 1983. It was specifically pointed out that the Death Hollow Unit was terminated by the BLM in 1986. In addition thereto, Mid-Continent Oil & Gas Reserves, Inc., lost all of its right, title and interest to said wells and subject leases, through a judicial sale in favor of Brown Oil Company on May 22nd, 1989. A copy of a letter dated May 25th addressed to Harry Brown, President of H.B. Brown Oil Company is enclosed herewith.

As per instructions of your September 28th letter and as a courtesy to you and the Department of Natural Resources, Division of Oil, Gas and Mining, the production reports were made current on October 17th.

Sincerely yours,

John D. Slawter

JDS:mj

Enclosure as stated

Division of Oil, Gas and Mining
PHONE CONVERSATION DOCUMENTATION FORM

Route original/copy to:
[] Well File Chargu #1-4
(Location) Sec___ Twp___ Rng___
(API No.) ______

[] Suspense
(Return Date) ______
(To - Initials) ______

[] Other ______

1. Date of Phone Call: 11-7-89 Time: 10:39

2. DOGM Employee (name) Tami Searing (Initiated Call [x])
Talked to:
Name Greg Christensen (Initiated Call [ ]) - Phone No. ( )826-4291
of (Company/Organization) BLM - Escalante

3. Topic of Conversation: Oper of record

4. Highlights of Conversation: Currently no-one is lease oper. of these wells. They request that we forward a copy of the Oct 21st letter sent to DTS

11-8-89 Luisa Thompson - Mid Continent is still responsible for these well H. B Brown is in the process of acquiring a bond.

1-10-90 H.B. Brown did purchase wells per Luisa Thompson but are not as of yet bonded. H.B. Brown applied for a lease bond which will not include these wells.

Division of Oil, Gas and Mining

PHONE CONVERSATION DOCUMENTATION FORM

Route original/copy to:

[] **Well File** _____

_____

(Location) Sec___Twp___Rng___

(API No.) _____

[] **Suspense**

(Return Date) _____

(To - Initials) _____

[] **Other**

_____

_____

_____

1. Date of Phone Call: 6-22-90 Time: 9:45

2. DOGM Employee (name) L. Romero (Initiated Call [X])

Talked to:

Name Oliver Gushee (Initiated Call [ ]) - Phone No. (801) 531-8446

of (Company/Organization) Atty, H.B. Brown Oil Co.

3. Topic of Conversation: Legal documentation from H.B. Brown Oil Co. of operator change. (6-21-90 Btm/Theresa H.B. Brown Oil Co. Bonded eff. 2-9-90) they are now operator of wells.

4. Highlights of Conversation: He referred me to mr. Orlyn Terry 3000 Youngfield, Suite 338, Lakewood, Co 80215 (303) 234-0141.

* Mr. Orlyn Terry will send documentation of operator changes. He mentioned that the Charges 1, Charges 2 and Charges 4 were involved, and are now operated by H.B. Brown Oil Co.

* Received documentation 7-9-90. Operator Name should be:

Brown Brothers Land Company

50 west Liberty Street

Reno, NV 89501

(303) 234-0141 Orlyn Terry

* 7-13-90 Confirmed operator name with Btm/Theresa - ok!

ORLYN TERRY • GEOLOGIST • OIL & GAS PROPERTIES
3000 YOUNGFIELD, SUITE 338, LAKEWOOD, COLORADO 80215 (303) 234-0141

June 25, 1990

Lisha Romero
Division of Oil, Gas and Mining
#3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

Dear Lisha,

As the authorized representative for Brown Brothers Land Company, please be advised that Brown Brothers Land Company has replaced Mid Continental Oil and Gas as operator on the following wells:

1 Charger se sw sec 29 T32S-R3E 43-017-30120
(Lease V38347)

2 Charger nw sw sec 33 T32S-R3E 43-017-30121
(Lease V-65619)

4 Charger ne se sec 13 T33S-R2E 43-017-30122
(Lease V-53744)

Correspondence related to these wells should be sent to the address below:

Brown Brothers Land Company
50 West Liberty Street
Reno, NV 89501

Very truly yours,

Orlyn Terry

Orlyn Terry

cc Harry Brown

OT/jac

FORM 9

STATE OF UTAH

DIVISION OIL, GAS AND MINING

5. Lease Designation and Serial Number: U-53744

SUNDRY NOTICES AND REPORTS ON WELLS

6. If Indian, Allottee or Tribe Name:

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

7. Unit Agreement Name:

1. Type of Well: OIL ☐ GAS ☐ OTHER:

8. Well Name and Number: Charger #4

2. Name of Operator: Brown Brothers Land Co.

9. API Well Number: 4301730122

3. Address and Telephone Number: P.O. Box 753, Salt Lake City, UT 84110 801 295-2871

10. Field and Pool, or Wildcat:

4. Location of Well
Footages: T. 33 S., R. 3 E. Sec. 13
QQ, Sec.,T.,R.,M.:

County: Garfield

State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☒ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☐ Vent or Flare	☐ Fracture Treat	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other	
☐ Other			

Approximate date work will start

Date of work completion

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

This well has been shut in for the past 3 years.

RECEIVED
DEC 11 1992
DIVISION OF
OIL GAS & MINING

13.

Name & Signature: [signature] Title: Agent Date: 12-11-92

(This space for State use only)

(12\92) (See Instructions on Reverse Side)

Form 3000-3
(October 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0034
Expires: July 31, 1995

ASSIGNMENT OF RECORD TITLE INTEREST IN A LEASE FOR OIL AND GAS OR GEOTHERMAL RESOURCES

Mineral Leasing Act of 1920 (30 U.S.C. 181 et seq.)
Act for Acquired Lands of 1947 (30 U.S.C. 351-359)
Geothermal Steam Act of 1970 (30 U.S.C. 1001-1025)
Department of the Interior Appropriations Act, Fiscal Year 1981 (42 U.S.C. 6508)

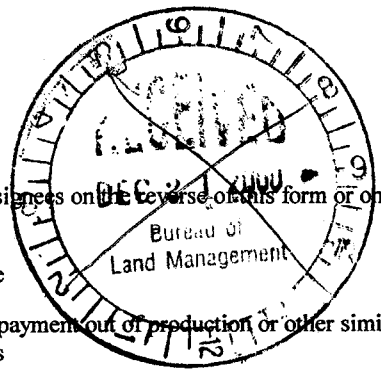
Lease Serial No.
UTU-53744

Lease Effective Date
(Anniversary Date)
9/1/76

New Serial No.

Type or print plainly in ink and sign in ink.

PART A: ASSIGNMENT



1. Assignee*
   Street
   City, State, ZIP Code

   Richardson Production Company
   1700 Lincoln Street, Suite 1700
   Denver, CO 80203

*If more than one assignee, check here ☐ and list the name(s) and address(es) of all additional assignees on the reverse of this form or on a separate attached sheet of paper.

This record title assignment is for: *(Check one)* [X] Oil and Gas Lease, or ☐ Geothermal Lease

Interest conveyed: *(Check one or both, as appropriate)* [X] Record Title, ☐ Overriding Royalty, payment out of production or other similar interests or payments

2. This assignment conveys the following interest:

Land Description Additional space on reverse, if needed. Do not submit documents or agreements other than this form; such documents or agreements shall only be referenced herein. a	Percent of Interest Owned b	Conveyed c	Retained d	Percent of Overriding Royalty or Similar Interests Reserved e	Previously reserved or conveyed f
Township 33 South, Range 2 East, SLM Section 13: W/2 Section 23: W/2 Section 26: W/2NW/4, SW/4 Section 33: NE/4SE/4 Section 34: N/2 Section 35: W/2E/2, W/2 Containing 1,720.00 acres, more or less Garfield County, UT	50%	50%	0%	-0-	-0-

RECEIVED
FEB 2 2001
Bureau of
Land Management

FOR BLM USE ONLY-DO NOT WRITE BELOW THIS LINE

UNITED STATES OF AMERICA

This assignment is approved solely for administrative purposes. Approval does not warrant that either party to this assignment holds legal or equitable title to this lease.

[X] Assignment approved for above described lands;

Assignment approved effective MAR 1 2001

By _____ (Authorized Officer)

☐ Assignment approved for attached land description

☐ Assignment approved for land description indicated on reverse of this form.

Chief, Branch of Mineral Adjudication (Title)

FEB 5 2001 (Date)

Part A (Continued): ADDITIONAL SPACE for Names and addresses or additional assignees in Item No. 1, if needed, for Land Description in Item No. 2, if needed.

STATE OF CALIFORNIA)
) ss.
COUNTY OF ORANGE)

The foregoing instrument was acknowledged before me this 1st day of November, 2000, by PATRICIA BROWN, as PRESIDENT for Brown Brothers Land Company, a Nevada corporation, on behalf of said corporation.

Witness my hand and official seal.

My Commission Expires: 10/20/03

Betty Louise Koontz
Notary Public

BETTY LOUISE KOONTZ
Comm. # 1235284
NOTARY PUBLIC CALIFORNIA
Orange County
My Comm. Expires Oct. 20, 2003

PART B: CERTIFICATION AND REQUEST FOR APPROVAL

1. The Assignor certifies as owner of an interest in the above designated lease that he/she hereby assigns to the above assignee(s) the rights specified above.

2. Assignee certifies as follows: (a) Assignee is a citizen of the United States; an association of such citizens; a municipality; or a corporation organized under the laws of the United States or of any State or territory thereof. For the assignment of NPR-A leases, assignee is a citizen, national, or resident alien of the United States or association of such citizens, nationals, resident aliens or private, public or municipal corporation, (b) Assignee is not considered a minor under the laws of the State in which the lands covered by this assignment are located; (c) Assignee's chargeable interest, direct and indirect, in each public domain and acquired lands separately in the same State, do not exceed 246,080 acres in oil and gas leases (of which up to 200,000 acres may be in oil and gas options), or 300,000 acres in leases in each leasing District in Alaska of which up to 200,000 acres may be in options, if this is an oil and gas lease issued in accordance with the Mineral Leasing Act of 1920, or 51,200 acres in any one State if this is a geothermal lease; (d) All parties holding an interest in the assignment are otherwise in compliance with the regulations (43 CRF Group 3100 or 3200) and the authorizing Acts; (e) Assignee is in compliance with reclamation requirements for all Federal oil and gas lease holdings as required by sec. 17(g) of the Mineral Leasing Act; and (f) Assignee is not in violation of sec. 41 of the Mineral Leasing Act.

3. Assignee's signature to this assignment constitutes acceptance of all applicable terms, conditions, stipulations and restrictions pertaining to the lease described herein.

For geothermal assignments, an overriding royalty may not be less than one-fourth (1/4) of one percent of the value of output, nor greater than 50 percent of the rate of royalty due to the United States when this assignment is added to all previously created overriding royalties (43 CFR 3241).

I certify that the statements made herein by me are true, complete, and correct to the best of my knowledge and belief and are made in good faith.

Executed this 1st day of November, 20 00

N0495

Name of Assignor as shown on current lease Brown Brothers Land Company
Please type or print

Assignor Patricia Brown (Signature)

~~Attorney-in-Fact~~ President

(Signature)

~~10 Cypress Tree Lane~~ 1221 W. Coast Hwy., Apt. 110
(Assignor's Address)

~~Irvine~~ Newport Beach CA ~~92620~~ 92663
(City) (State) (Zip Code)

Executed this 10th day of October, 20 00

Richardson Production Company

Assignee (Signature)
or
Attorney-in-Fact Cathleen Colby (Signature)

Public reporting burden for this form is estimated to average 30 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management, (Alternate) Bureau Clearance Officer, (WO-771), 1849 C Street, N.W. Washington, D.C. 20240, and the Office of Management and Budget, Paperwork Reduction Project (1004-0034), Washington, D.C. 20503.

Title 18 U.S.C.Sec. 1001 makes it a crime for any person knowingly and willfully to make to any Department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

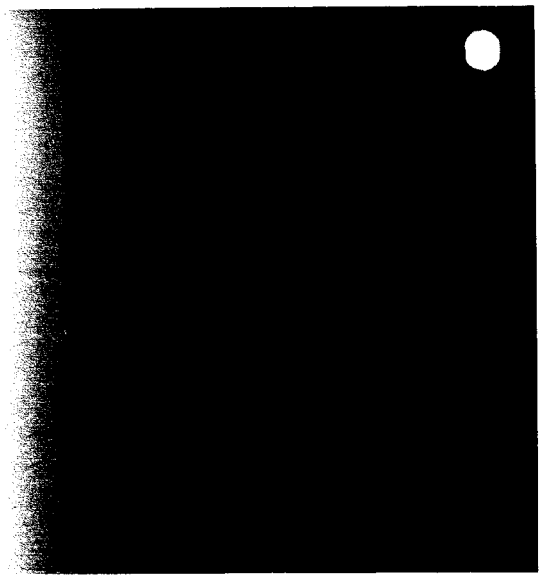
STATE OF UTAH)
) ss.
COUNTY OF SALT LAKE)

On this day of FEB 5 2001, before me appeared Robert Lopez, to me personally known, who being by me duly sworn did say that he is the Chief, Branch of Minerals Adjudication, Bureau of Land Management, Utah State Office, and that the original of the foregoing instrument was signed on behalf of said Bureau, and that he acknowledged said instrument to be the free and voluntary act of said Bureau.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal the month, day and year first above written.

NOTARY PUBLIC
CHRISTOPHER J. MERRITT
324 South State #400
S.L.C., UT 84111
COMMISSION EXPIRES
DEC. 27, 2001
STATE OF UTAH

Christopher J. Merritt
Notary Public



FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-38347

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER Shut-In

8. WELL NAME and NUMBER: Charger #4

2. NAME OF OPERATOR: Richardson Operating Company N2400

9. API NUMBER: 4301730122

3. ADDRESS OF OPERATOR: 5600 S Quebec, #130-B CITY Greenwood Village STATE CO ZIP 80111

PHONE NUMBER: (303) 830-8000

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 501' FNL & 2078' FWL

COUNTY: Garfield

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 13 33S 2E S

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☑ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Operator change from Brown Brothers Land Company to Richardson Operating Company. Sundry inadvertently not filed when title was transferred. Transfer documentation attached per conversation with Earlene on 6/27/05.

State of Utah Surety Bond RLB0008219

See attached BLM form for Brown Brothers Land Co offer to transfer. Effective 11/01/2000 N0495

APPROVED 8/24/05
Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

NAME (PLEASE PRINT) Patti L Davis TITLE Vice President

SIGNATURE Patti L Davis DATE 6/28/2005

(This space for State use only)

RECEIVED
JUN 30 2005
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

ROUTING
1. DJJ
2. CDW
3. FILE

X Change of Operator (Well Sold) Designation of Agent/Operator

Operator Name Change Merger

The operator of the well(s) listed below has changed, effective: **11/1/2000**

FROM: (Old Operator):	**TO:** (New Operator):
N0495-Brown Brothers Land Company	N2400-Richardson Operating Company
1221 W Coast Hwy, Apt 110	5600 S Quebec, #130 B
Newport Beach, CA 92663	Greenwood Village, CO 80111
Phone: 1-(949) 645-9974	Phone: 1-(303) 830-8000

CA No. **Unit:**

WELL(S)

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
CHARGER 1	29	320S	030E	4301730120	10776	Federal	GW	S
CHARGER 2	33	320S	030E	4301730121	11182	Federal	GW	S
CHARGER 4	13	330S	020E	4301730122	10777	Federal	GW	S

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 6/30/2005
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 6/30/2005
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 7/29/2005
4. Is the new operator registered in the State of Utah: NO Business Number: 1186557-0143
5. If **NO**, the operator was contacted contacted on: 8/24/2005

6a. (R649-9-2)Waste Management Plan has been received on: requested 8-24-05

6b. Inspections of LA PA state/fee well sites complete on: n/a

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 2/5/2001 BIA n/a

8. **Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: n/a

9. **Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: n/a

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 8/24/2005
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 8/24/2005
3. Bond information entered in RBDMS on: n/a
4. Fee/State wells attached to bond in RBDMS on: n/a
5. Injection Projects to new operator in RBDMS on: n/a
6. Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: RLB0002500

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: n/a

FEE & STATE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number n/a
2. The **FORMER** operator has requested a release of liability from their bond on: n/a
   The Division sent response by letter on: _____

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

COMMENTS: